

SEQ ID NO: 3609 ACAAGACTCTTGACAGTTGTGCTTCTCTAGGAGGTTGGGTTTTTTTTAAAAAA  
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SEQ ID NO: 3610 ACGCGGGTGCTTTTGTACCTTTGAAAGCCAGCAGACGCTAAGGATGCAGC  
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SEQ ID NO: 3611 ACAGAAATTTACAAGAAGTCAAACACAGTGATGCCATTTGCTATGTTTTATT  
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SEQ ID NO: 3612 ACGCGGGCTCGCTCAGCTCACCCACGCTGCTGGCCCTGTGAGGGGGCAGGGA  
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SEQ ID NO: 3613 ACAGCCTGTCCTCCCACCCAGGAACACCCTCTGCCTAATGACAGGACCTTCCT  
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SEQ ID NO: 3614 ACTATTTACAGCTAAACCAGCTATACAGGATCATAAAAAAGTGAGAACATTTT  
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SEQ ID NO: 3615 ACGCGGGGCAGCAGGACTCGGTCTAGCAAGGCCATCTTGTTGCCGGACCTTT  
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TGNTGTTTTCTTGGGAGATTTATNG

SEQ ID NO: 3616 CGCGGCGAGGTACGCGGGGTCTCGCGGCCGACTCGCAAGATGGCGCCGCGAG  
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SEQ ID NO: 3617 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAGCANATTTTAAGGGTTTTATTTAAA  
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SEQ ID NO: 3618 ACACAAGATGGTGGCCTTGGCGGTTACTCTTCCAACCACTTCCACAATTCCAG  
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AAACATTTTTCCGGTGGGATGAATCTTTTCCAGCCTCCCTACGAAGCANACAGGCTTGTGATGAA  
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SEQ ID NO: 3619 CGCGGCGAGGTACTGGAGATGTATTTGATAACCAAGGTTTTAGGTAAAATTTTC  
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SEQ ID NO: 3620 CGCGGCGAGGACGCGGGGAGAGAAGTTTGTGTCATGCAGGAGGAGTTCTCGCGT  
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SEQ ID NO: 3621 ACCAAGGCTTTAACGTGTCTGTGCAGGGTATTATCATCTACCGAGCCGCTAC  
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ANGGCTTNNAGCGTNNAANTCTACCTTAATGGNNTANCTTCAAATTTNGGAATNTNNNAATTT  
ACNCCCCCTCTGCTTAGTTTAGGAACNAAAT

SEQ ID NO: 3622 ACAATCTATCGACAAAACAAACTCCAAAAGAAGGTGTGAAAGTTAACAAGG  
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GCAATGGCCCCGTGCTGGTGGGCAGCCCCAGGGGGCGTCGACATTGAAGAGGTGGCTGCTTCA  
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AATAC

SEQ ID NO: 3623 ACGCGGGGAGTGAGGAGGAACGCGAAAAGGTAACGCCACTCATGGTCAAAG  
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CGCCNTCATTTGGNGATGTGNTGGTGTTAACNATACCTNTANGAACCCAATTTTNTNCAAATGNCC  
TCATTNGCTGGNTTAATCCTTGAAAGANGTAATAANNTTTTNTATGGGTNNTCTACNTACAAANANT  
NGGTAAC

SEQ ID NO: 3624 AAAAAACCCAAATTGATAAATCTGCAAAATCTTAAACTTCTTAATCCATTGA  
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CAAGAAGGTATATATATGCATTCTNAANANAGCTTANAANGTTACAGTTNACTTCTATTACAGNATT  
GGTAAAGTTGACTANGGATGGCT

SEQ ID NO: 3625 CGCGGCGGGTACAGATCTCACAGGGACACTCCTTATCCCTTGACAGAGTTCCA  
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SEQ ID NO: 3626 ACGCGGGGCAGGACAGCATTTCATATGTAACCATTTGAATGTTTTTGCTGTTT  
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GATTA

SEQ ID NO: 3627 ACAAATAAAATCAAAAAGAGCAGTGTTCTGTGTATTTCATTTCTGCATGTATA  
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CCCACGTTATTTTTANAA

SEQ ID NO: 3628 ACGAGACATGTCATGCTGCCCAAGGACATAGCCAAGCTGGTCCCTAAAACCC  
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SEQ ID NO: 3629 ACCACAGTTCACAAGTGACAGGAGAGAATTTTGATAAATTGTTAGCTGGAAAG  
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SEQ ID NO: 3630 ACAGATACTTATGAGGCCAGCTGGTCTTTAATTATGTGGGTCCGAAGCAAATT  
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ACACATCAGACTCTGCNGCCANTTCAAATAGCGTCTTGGCTGAGTCTGGNATGANTAGCTCATCAA  
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SEQ ID NO: 3631 ACGCGGGGAAGTATGGAATAAACTACTGATGCAGTGAANACAGTTGAAAA  
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SEQ ID NO: 3632 ACCTTTCCTTTTCCAAATCTAGCTGAAATTTCTCACTTGTTTTCTTTTGATGA  
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GAGAACATCTCCTCAGAATGTCATAGGCTGCTTTATCTCCTCTAGGGGAGCTGGTCTGGGCTAGN  
GCTCTGACATCNAAANTGGATCCA

SEQ ID NO: 3633 GGGTACCAAAGTACCAATGGGCTGCAAGAGGTTTAGATTATTGCTACCCAC  
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SEQ ID NO: 3634 GGGTACAGGCGGCAACTTCCAGAGCTTCCCCTCAGTGCTTGGTGACTGGCAC  
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SEQ ID NO: 3635 ACAGGGAAAGGAAAAATTTTCACCAACAGAGGCAGTCTCTCATAGAGTATAA  
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SEQ ID NO: 3636 AGCGGCGAGGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATT  
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CGCGAGGGCTACGANCGTCTCNTGAAGATGCANAACNGCTTGNCGGCCGTNCTCTCTTCCAGGA  
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SEQ ID NO: 3637 ACGCGGGTATTGAGAGTGATAGTTTGTGGCTTGTANAATTCTATGCTCCATGG  
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GNCGAAACCTNTGTNGATGCTGCTCTGAATTGCTTN

SEQ ID NO: 3638 ACTTTTCTTTGAAGTTTGTAGCGGTCAATTTGCCTTTTTAATGAACATGTGAAG  
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CCACTGTATAGTTTACTTCTACCATTTGAGTTGCCCATCTTGN TTCACNCTAGTCACATTCTTGTTT  
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TGCNTAAAATTGCGTNTAANTATANGAATAAATNGTNCNTNGGCCGGAACCCNCNCTN  
NGGCNAAATTCCAAGACATTG



SEQ ID NO: 3639 GCGGCGAGGTACGCGGGGGCTGTGCGGCGGTGGACTCGTCGGAGCCGCGGGC  
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CCCTTCAAAGGAAGAGCAATGGCTGCAGCAGCAGCTTCTCACCTGAACCTGGATGCCCTCCGGGA  
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ATTGCNAAAATCATTGATCCAGCTTGGGNTCANCANNGCTNTNGGGGTNTAATNTGTTAGTCTTG  
TGGCGG

SEQ ID NO: 3640 CGGTACCCATGCACAGCAGCTGTGGGGTGTGGGCATCTTCAGGTGGTGTCT  
GGTAAAATCGTTAGAAATAGCTGTATGAAGGAAACCACTGGGAGGAAATGAAGTTTTTCAGGATGGT  
GGGATGTGATTTAGACAGTGCACATGCTGTTATGGCTGTCACTAGGGAGTGGCCTTNATGGAGGG  
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SEQ ID NO: 3641 TTACACATTGCCTCACTTTATATTTTTAAATGAGAATCTTGTTTATTGTATTGTA  
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TAAATGATGACATTTCTTAATAAAATACTGGGCTTGTGATTAAAGTTCAACCTGGCACATGTTAATT  
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GTNACGGACNCTTCAATCTAGAATAAAGCAGGANTAAGTTGCTAACAGTNTATACCCTGTGGCA  
NATTGATTTTTGTAGCATAT

SEQ ID NO: 3642 ACACTTGAAACCAAATTTCTAAAACCTGTTTTCTTAAAAAATAGTTGTTGTA  
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SEQ ID NO: 3643 ACGCGGGGGCTGACTCTCTTTTCGGACTCAGCCCGCCTGCACCCAGGTGAAA  
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CATTATCAAATCATGGNANCAACCTNTTTTACTCATNTNCTNNAACNTACCTCACTATCCCTNAAC  
CACTTCTCCTTTAAATCTTGGCACTACNCATTTAATCT

SEQ ID NO: 3644 ACAAATAAAATCAAAAAGGGCAGTGTTCTGTTGTATTTCATTTCTGCATGTATA  
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SEQ ID NO: 3645 ACACATCTTATAGCTGAACGCCTATGTAAGAGTGAAAAATTTTTAGCAGCTTG  
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SEQ ID NO: 3647 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTACCCTCAGTCTTTTANACTCTCAGCTG  
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SEQ ID NO: 3648 ACGCGGGGGGTGGAGGTGGTAACCGTGATAGTAGCAGCTCCGGCGGCAGCA  
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SEQ ID NO: 3649 ACACTGTTGGAGAGATGAGACAGTCACACCAGCTGCCCTAGTGGGGCTCTT  
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SEQ ID NO: 3650 ACTTTTTTTTTTTTTTTTTTTTTTNGGCCCTTATATCAGTTTTATTGGTGGGTTT  
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SEQ ID NO: 3651 ACAGCATAAAGTCTACTTTCTCTTGAAGAAACCATAAGCTACCAGCTGTTGG  
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SEQ ID NO: 3652 ACGCGGGGGTGTGAGTTTTGTGGACCTGGAACAATTTAACCAGCAACTTTCC  
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SEQ ID NO: 3653 ACGCGGGGAGCGGTAGCTGGTCTGGCGAGGTTTTATACACCTGAAAGAAGAG  
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SEQ ID NO: 3654 ACGCGGGACCGAATAGAATCGAATGGAACAATCATCGAATGGACTCAAATG  
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SEQ ID NO: 3655 ACGCGGGGAATCTGCCATTTTCTGTCCCTGAGTGAGTCTCTGGCGTCCCAAAT  
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SEQ ID NO: 3657 ACTCAAACAAAACAAAACAAAACCGGAGTAAAAATTACCGTTAAATTTTAAAC  
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SEQ ID NO: 3658 ACAAACATGTGGCAGGTAAACATCAGGCATAAAAAAGGACAAATACTGAAA  
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SEQ ID NO: 3659 ACGCGGGGGTGTCTATGGCCGGCTCCTACCCTGAAGGTGCACCTGCAGTCCTC  
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SEQ ID NO: 3660 ACTCGGTGAAGTCTTTTGAAGAGCTTCGGCTGAAACCACAGCTTCTCCAAGG  
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SEQ ID NO: 3661 ACAGTCTTTCATTAAATAAGAATACTTACACATACATTTTTCAGATATTTCTAC  
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SEQ ID NO: 3662 ACCACCCTGAGTTCCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGC  
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SEQ ID NO: 3664 ACAAATATCCCCACTTCCCTTGAGAAAGAGTATATCTAAAATACACTTTGAT  
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SEQ ID NO: 3665 ACCGACCATAGAGCAAGAATCAAGATTCTGCTAACTCCTGCACAGCCCCGTC  
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SEQ ID NO: 3666 TTCGGCCGAGGTACGCGGGGGAGGGTTCCAACTTTTCTGCTTATCTGGGAGGT  
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SEQ ID NO: 3667 CGTNCGCGGGGACGCTGAGGGGTCCGAGGAGACCGTGAGGCTNTGGCCTG  
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SEQ ID NO: 3672 ACAATACAGAAATGCTGATGTCTGAGCTGAGTCCTGAAGACCAGAGAGTATT  
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SEQ ID NO: 3676 ACTTCATGAAATTATAAACATGTTTTTAAAGCTTGGTTTTTAAAAAAGGCGTT  
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SEQ ID NO: 3682 ACGCGGGGGTGATTGAGAGAGGGGTTAGAGGCGGGTCCAGCGCTGCCGCA  
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SEQ ID NO: 3683 ACTATCTAGTGTCTAAAACATTATTCTCCAGAAAAATCAATCATTTTCTAGCC  
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SEQ ID NO: 3691 ACTCATCTTCTGACTTAAAGCAGATTCCCATTAAATGGACAGCACCAGAAGC  
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SEQ ID NO: 3692 ACACTTGAAACCAAATTTCTAAAACATGTTTTCTTAAAAATAGTTGTTGTAA  
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SEQ ID NO: 3693 ACGCGGGGAATGAAGTGAGGCCAGTGGCCGGTCTGCTGAGTCCGACGACT  
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SEQ ID NO: 3697 ACACTTGAAACCAAATTTCTAAACTTGTTTTTCTTAAAAAATAGTTGTTGTA  
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SEQ ID NO: 3702 ACGCGGGGGCCAAACTTGACCGCGCGTTCCTGCTGTAACGAGCGGGCTCGGAG  
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SEQ ID NO: 3704 ACGCGGGGACATATCCAACCTCTGCTCTCCCTCCTGCAGGTGACCCAGCCATG  
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CTTTGCAGGAAATGGAATCTCTGCTCTTAGAACCTCAGGTTCTCAGGCAAGAGCCACCTGCTATTG  
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SEQ ID NO: 3705 ACGCACCTGGGNTNAAAATGCAGGCGATTCTCTGAGGACGCCATCCCTGAGGA  
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SEQ ID NO: 3706 ACCTGTATTGGGGAAACATAGCATACAAGCAAGAAGCTTACAGCCTCAGTGG  
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SEQ ID NO: 3707 ACGCACCTGGGGTCCAAATGCAGGCGATTCTCTGAGGACGCCATCCCTGAGGA  
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TTTTAAAG

SEQ ID NO: 3708 ACGCGGGGGGAGCCAGGGCCGGAAGTAGAGCGGAGGTGGTGGCGGCGGAGG  
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SEQ ID NO: 3709 ACTTTTTCTTTGAAGTTTTAGCGGTCAATTTGCCTTTTTAATGAACATGTGAAG  
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SEQ ID NO: 3710 ACCGACCATAGAGCAAGAATCAAGATTCTGCTAACTCCTGCACAGCCCCGTC  
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CCCNCT

SEQ ID NO: 3711 ACCCAAGGGGGTGAGGATGGCATTGTGGGCGATCAGCTCCCATCTTCCCTCT  
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SEQ ID NO: 3712 ACTTGCTGGTCTCAAATTTCCACAAGGAGATATCAATGGTGATACCACGTTCA  
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SEQ ID NO: 3713 ACACAATGTGCTTCCTTGTTTGTATTATAACACATTTCAAATAGGGACCTTTG  
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SEQ ID NO: 3714 ACATTTACCCTGATCATAAAAAGAGGGACAAGGGAGCACTGGGCTCTACTGG  
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SEQ ID NO: 3715 ACGCGGGGACTGCGGGCTGGTCCGGGCTCCTCAGGTTCCAGACCCGACCGTTA  
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SEQ ID NO: 3716 ACGCGGGGGATGCTGCGCCTCTCCGAACGCAACATGAAGGTGCTCCTTGCCG  
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SEQ ID NO: 3717 ACCCTTGGAAGATGGGAAAGGTGAGGGAAATATTTGAAGCAGGGTCAGAAC  
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SEQ ID NO: 3718 ACAGAAAGTAAAAATGCTGTTACAATCTCAGTGTAAGTGGTAGCCACAGACG  
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SEQ ID NO: 3719 ACTCCAAGCTGCAGGATTTTATAACTGGGGCAATTGTGGTTGGATTTTCATCCC  
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SEQ ID NO: 3720 ACGACTTANATAAATATGATGAGGAAGGTGACCCAGATGCTGANACTCTTGG  
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ACACNTAGGTAAACCTTA

SEQ ID NO: 3721 ACCACGAAGTCAATACTTCTCAGTGAGTAGGGAAGGCAAAATACTTCTCTCAA  
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SEQ ID NO: 3723 ACCACTGTCTTGGAATAACAGCTTTGAGACACCAAATAAGATGTCAGAAGCC  
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SEQ ID NO: 3724 ACTGAGACCTATTGGAGCTTGTGGCCAGCATCCCATCTGCACCGTTGGTCAGG  
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SEQ ID NO: 3725 ACGCGGGGTTGGCGATGGATATGTGGTTCATCTGGCCCCCTCCAAGTGAGGTC  
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SEQ ID NO: 3727 ACGCGGGGATATTGGAGCAGCAAGAGGCTGGGAAGCCATCACTTACCTTGCA  
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SEQ ID NO: 3730 ACCACCTCAGGTGTTTGCTGTCTTTCTTCAGGTTCTCTACTTCTTCTTCAGAC  
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SEQ ID NO: 3731 GTCGGCCGAGGTACCAAGAAAAGGGTGTCCGTTGCTAGAGAACTTGGTGTG  
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SEQ ID NO: 3732 ACACAATGGTTTATTAAAGGAATGTATGGCCACATCAACCTAGCAAGGATT  
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CANGCAATGGAGAGAGGGCAGAAAGGGTGTAGAAGCTGAANGGGTCTANAAGCTTACTCCTGAGT  
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CAANT

SEQ ID NO: 3733 ACATCATCTGGTTCTCCAGACCCCTTTTAGGACTGAACTGTGCTTTAAATAGT  
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SEQ ID NO: 3734 ACATAGACAAGTTTCTTGTAAGACAGAAAAACAGAGAAATCCACAGTAACTCT  
AACACATCCCTTAAGGAATAAGCATGTATTTGTAGGAAGCAAACAAAGCTTTCATAGAGAAACC  
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CTCAGCGTAGTGGAATGTAGCTGAACCTGGCTCTGAAAGCTCTCTGGTGGAGAGTTCTACTTNANG  
TTTCACTCCTGGTGGAGGAGGCTTTCAGTCTCCATGATTGCCAGTTGAAAGCCAACAGACGGTGC  
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SEQ ID NO: 3735 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGATATCGATCTCTTTTAAATTTTTAGGCC  
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ANCCCTTATTTACACACTGGGAGGGCNTNNCNCNTGAAACACAATTTCTTTCTTTTACAGGGGG  
GCCNACTGGTACCTCTGGNCNTAACNCNCTAATGGCGA

SEQ ID NO: 3736 ACGCGGGATCCCAAGTCCAGCGTGAAGGGCCACAGCCCCTCTGGCTGCCAA  
GCACGCAGATCCCATGGACATTTGGGGAAGGGCTCCTTGGGCTGCTGGTGAACCTCTGTGGCCA  
CCACCTCCTGCTCCTGACCTCCCTGGGAGGGTGCTATCAGTTCTGTCTGGCCCTTTCAGTTTTATA  
AGTTGGTTTTCCAGCCCCCAGTGCTCTGACTTCTGTCTGCACATGAGGAGGGAGGCCCTGCCTGTGT  
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ATCTTGGANGGCATNTGCCTTACTGATTAAAANTGTCAATGCANTAANAAAAAAAAATAANA

SEQ ID NO: 3737 ACAGCGGGGGCTTTTGTGTTGTGTCCCTGGCCATGGCGCTGCAGCTCTCCCGGG  
AGCAGGGAATCACCCCTGCGCGGGAGCGCCGAAATCGTGGCCGAGTTCTTCTCATTCGGCATCAAC  
AGCATTATATATCAGCGTGGCATATATCCATCTGAAACCTTTACTCGAGTGCAGAAATACGGACTC  
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AATTGGTTATACAAGTGTNAGNTCANAAACCTGGTTGTANTTATCTCAAATATTGAAAGTAGGTG  
AGGTCCTGAAAAGATTGCAA

SEQ ID NO: 3738 ACCGACCATAGAGCAAGAATCAAGATTCTGCTAACTCCTGCACAGCCCCGTC  
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AGTGATAAGGGCCCTACTACACTGGCTTTTTTAGGCTTAGAGACAGAACTTTAGCATTGACCCAN  
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TGCCATAAGAAGTAAAGATTTGAATGACATGATGGAAGAACTCAGGAGTNNGCTTCTAGACCC  
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SEQ ID NO: 3739 ACGTCAAGCAGGAGTGCAATCGCACCCACAACCGCGTGTGCGAATGCAAGG  
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TCAGAAAGGAAATGCNACACACNACAACATATGTTCCGGAAACANGTGAATCAACTNAAAAAT  
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GCCTAACCTGGCTTAATTGTCTATGGTAGANAAATNTGCCTGGCACCAAAGTTAACGCAGAANA  
GTGTTANAGANGGATTTAAACGGGAACCTCAGCTTCACAAGNAACAGTACTTTCCANCTGCTTGAA  
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SEQ ID NO: 3740 ACCATTGGTGGTGGTATCTTTCAAGCAATCAAAGGTTTTTCGCAATTCTCCAGT  
GGGAGTAAACCACAGACTACGAGGGAGTTTGACAGCTATTAACCAGGGCTCCACAGTTAGGAG  
GTAGCTTTGCAGTTTGGGGAGGGCTGTTTTCCATGATTGACTGTAGTATGGTTCAAGTCAGAGGAA  
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CTGGTATCTTGTGACAAGATTGCCCTCTGCACAANTTTCCCAATGGTCTCANTTTGCAAAAAA  
NCCCTCCAGTTGCCTTCAACTCANTTACCTTCTCACCCCTTTTGAAACTANTCGACAATNTCAGT  
AGGGACTTCTTNTAANGATTTCTTTTAAACAAAACAAGTTGTGGGTTCTN

SEQ ID NO: 3741 ACAATTCCTTGTTTTCAAGGGTAAGTTCCAAGACTTCCAGACTCAGGTTTGAA  
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GTGGGCCATCTCTTTGGTCAGCTCATCTGGTTCATANCTACTCTCNGAGTCTTNCAACATCATGTGG  
CTCCTGCNCTTNAANGGGCACTGGNAACAACCACTGGCATAGNAGGCCCGGCTCCTNNCTANAGT  
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SEQ ID NO: 3742 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGNCANCTATTTAATTAGGTTCT  
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CAATCTTGCNCTGCTCCAGTAATCNCATATTTCTCTTTTCTGGGTCAAAAATCTCACCTTCTCGN  
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NCCCTTTTCCCCNGTGGCG

SEQ ID NO: 3743 ACTGTATTTATTTCTTATTTTATACAACCTCTTACTCTTTACAAAAATGGTTATA  
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AATAAGGCTTACTTTTAAATACAAAGACTAAGCGGTTTGGGAGTTATGAACCACTGGATTTAAACA  
ACATCATTTTATAATTGCTTTTTGCATCTTTTTTGTTTTTGGGATCCTCCACTNCATCANGGGTGCTN  
ANCAGGCTTGAGATTCTACAGCAGATTCTTCTTCTCTGACTCTGAATCGCTTTCAGAATCATCTG  
GACTTTCANGATCAGGTGAATCATCATCNGCCATCATCA

SEQ ID NO: 3744 ACTGGAGATGTATTTGATAACCAAGGTTTTAGGTAAATTTTACCAGTATTAG  
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AAGGAAAAATTTCTGGAAGTTACACTCCACAACCTTTGAACATACCTGACGGGACATCTNTGGTTTT  
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GCCAAGCTACAAGCATCACNGATGTTNATCTTGCANCAAANCACTGCAAGANTAAATGACANGCN  
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SEQ ID NO: 3745 ACACGAGAAGCTCCGAGGATGGCTGAAGTCCAACGTCTCTGATGCGGTGGCT  
CANAGCACCCGTATCATTTATGGAGGCTCTGTGACTGGGGCAACCTGCAAGGAGCTGGCCAGCCA  
GCCTGATGTGGATGGCTTCCTTGTGGGTGGTGCTTCCCTCAAGCCCGAATTCGTGGACATCATCAA  
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SEQ ID NO: 3746 ACTTTGTTTGCTGATACAAGGTGAGCCAAAGGGGTGGTGAAAAGAACACACN  
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TTATATTTAGTTAGTTGATAACCNAAAAAANTGTCCANNAGTNAATACCCTACTGTACAAGTGA  
GGTTANAANCAANTCCCTGGGTCTTGTNGACCTAC

SEQ ID NO: 3747 ACTTTTCTTTTTTTTTTTTTTTTTTTTGCTGTTGTCCCAGATTTATTGAAAATAATA  
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TTNTGAAATCCGTINANTCAAAANTCCNTNACATNAACCTGNNTTTTTTNTNTNAGNAACCTTTT  
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SEQ ID NO: 3748 ACTGGCCAGGAAGGTGGAGTAGGTTTCAGGCCCTGGGGATTTCAAGTGCAGA  
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ACTTTCAG

SEQ ID NO: 3749 ACGCGGGGGTGCCAGGCGATCTTCCCTGGAGGGTCATTAGCAGCATTGAGCAG  
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CCNTATCTTTCCTT

SEQ ID NO: 3750 ACGCGGGGGCATCCTANCCGCCGACTCACACAAGGCANGTGGGTGAGGAAA  
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TGGCCAGAGATACCACAGTCAAACCTGGAGCCAAAAAGGACACAAAGGACTCTCGACCCAAACT  
GCCCCAGACCCCTTCCAGAGGTTGGGGTGACCAACTCATCTGGACTCANACATATGAAGAAGCTC  
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SEQ ID NO: 3751 ACACTTGAAACCAAATTTCTAAAACCTGTTTTCTTAAAAAATAGTTGTTGTA  
ACATTAAACCATAACCTAATCAGTGTGTTCACTATGCTTCCACACTAGCCAGTCTTCTCACACTTCT  
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AGGG

SEQ ID NO: 3752 ACTATAAGANTAAAGAAAATTGTGTTGTGGATAACATCAAAGTGTGCAGTAA  
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GACNTGCCNTTTTACTTGANAGTGGGATGGTTCCCGACTTTCTGTTNAATCCNANTGGTTTNCATC  
ACTNGAGTNACCATTGCNATGTAA

SEQ ID NO: 3753 ACTCATTCCTCTTCAAGAGCACCACTGGAAACATCTTTGGAATTGATGGGACA  
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SEQ ID NO: 3754 ACGCGGGGAATCATCGAATGGAATGGAATGGAACAGTCAATGAACTCGAA  
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SEQ ID NO: 3755 ACAGATGCAGCCGTGCAGGAGCCGAGCCAATTAATTTTCATTAGAGGAAGAAA  
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GCTGTTGAGTGAGATCTTCAATGCTTCCCTCCTTGGAAAGAGGGCGAGTTCAGCAAAGAGTGGGCCG  
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ANGGCCAGACAGGCTCANGTTTCCTTCCCTCGCANCTTTAGACCAAAATATGAAAGACTTACAG  
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SEQ ID NO: 3756 ACGCTGGCAGGGCCAGTGGCAGGAAGGGAGGGACAAGTGGACAGTGGTGTG  
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GTCTTGCCAGTTCANTCCTNAATCCANCNTNTTCCCTGGGAACAATACTGTTACCTANTTCAACA  
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GNG

SEQ ID NO: 3757 ACTTCTTGCCCTTGTTAGAAATTTCCCTGAGGTTTTCTTTCTGAGTCTGGNTAATAA  
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NATACGCCACNTGCCGNTANNNCTANNTACCGTGCCANGGGCGGTCNATACGAATGGGCTA

SEQ ID NO: 3758 ACTAAAAATTTTAAACGTCACCTTGGTGTTTTTTTCAAGACTAAGTGTGATAC  
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SEQ ID NO: 3759 ACGCTTTGCCAGTGTGGCTGGGTCCACCTGCATCTAGAGAAAAAGAAAAACAC  
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CCTCCAGGTCTCCANGTCACTAGGAAACAGAAAGTCGTTATAAGCACATGAGCTCNCCTGAGNTG  
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SEQ ID NO: 3760 CATCCTNCTATTGATATTANCTANTGTCATTAAGCCNTANCANACAGTAANGC  
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SEQ ID NO: 3761 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAAAATCACTCCTTTGTCTTTATTA  
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GTCTCTTNAATNTCCTCATGNGNTTCATCATCCTNTTTTCTGNAANTCATAGAGCTNTGAGGCT  
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SEQ ID NO: 3762 ACCCTTTGGATTTCAAACAGTAACATCGGATGTAAACAAACTTAGTTTCTTTT  
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GCTCTACNAAGAGACCCTATGCAAAGGAATTGGAAACTGTTGACTTCAAAGATAAATTGGAAGAA  
ACGAAAGGTCANATCAAACACTCAATTAAGGATCTCACAGATGGCCACTTTGAGAACATTTTANC  
TGACAACATGTGTGAACGACCAGACCAAAATCCTTGTGGTTAATGCTTGCCTACTTTGTTGGCAAG  
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SEQ ID NO: 3763 ACCTTCTGGGGCATAACAACATGGCAGCAGGGCCTTGGGAAGAGGGGTNGGA  
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SEQ ID NO: 3764 ACCANATACTTGATGTAGAAGGAGGTAATTTTCATGCCAGTTCACAGCAGT  
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SEQ ID NO: 3765 ACTTTAAATCTGAGAAAGAATTCAAGAAAAAAGATTACATGTCATGTATT  
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SEQ ID NO: 3771 ACCGGCTTCTTCTCTGGGGTAGGGGTAGCCTCGCCCGGAAGCAAGGCCTCTG  
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SEQ ID NO: 3772 ACCTCATAGTCAATNTNATTNTTNGCCGCGTTTANATGATNTAANGCANGAC  
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SEQ ID NO: 3774 ACCAGGTGTTAGCTGTGACCTTCAATGACACAAGTGATCANATTATTTCTGGT  
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SEQ ID NO: 3775 ACCACCTGAGTTCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGC  
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SEQ ID NO: 3778 ACACCAACAGCAGGTCACACATTAACAGTTGTAACCTAAGCACTGTGACAAAT  
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SEQ ID NO: 3781 ANTGANTCTCNGCAAANAAAAATCTTGCANAGTCCTCCAAACCAACAGCTGGT  
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SEQ ID NO: 3785 ACTCCCTGTCGTCAAAGTGCTTCCTCTGGTAAATACACGGGTGCCAACTTAA  
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SEQ ID NO: 3794 GGTACAGCTGACTATCCAACATGATTCCCTATGGAAACAGAAGGGGCAGAGTC  
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SEQ ID NO: 3796 ACATCCCCAGTCGTGGCCCTCTGGACAAGTGGCGGGCCCTGCACTCATGAGG  
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SEQ ID NO: 3799 GGTACCAGAACACATCACTGAAGAAGAGCTCAAAACCCCTTATGGAATGTGTT  
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SEQ ID NO: 3827    GGTACAGCGTCTCTCGAAACCACNAGCAAGTGAGCAGATCCTCCGAGGCACCA  
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CCTTGTTTGNNGAGAGGAAACCACTCCCAAAATTNGTTTCGCANGGGTACCCTGCNCTNGGCCNGG  
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SEQ ID NO: 3828    ACCCAAATGCTACCACTGGAGAAGGAATGAGAGATAAAGAAAGAGACAGGT  
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SEQ ID NO: 3829    GGTACTTCTTGCCCTTGTTAGAATTTCCCTGAGGTTTTCTTTCTGAGTCTGGTTAA  
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CCGCTGTCACTTTGGCGACGCGCANCTGGGACAAGCTNCANCTTTAAGGTNCGTTNCAGCTGGTT  
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SEQ ID NO: 3830    ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTATGTTTCTTTGGTTTTATTATTACA  
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CAGGGCCCCATAAAAGCCTCCAAACCACGTGTANATGTGANACANATTTGAAAAAAACATTTCAA  
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SEQ ID NO: 3831    ACGCGGGGGAAGAGGCCGGGCTACGTCGTGCCCTGCGCGTGAGCAGCTGCA  
GCGGCAGAGGCAGCATCCAGCGGCGGCCAGCAGTTCCAGTCCGTTGCTTTACTTTTTGCTTCAC  
CGACATAGTCATTATGCCGAAGAGAAAGTCTCCAGAGAATACAGAGGGCAAAAGATGGATCCAA  
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SEQ ID NO: 3832    ACTAACTTGTAGCAACCACGTGTCCGTGCAGTGCCACAGGAGCTAGAGCAGT  
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GAAACGTGGATTACACCCCTTGTAATTCCTATTTTCAAAAGATAATATATTGTAAGCCGGTCAT

GAGATTATATGTGGTAAAGTTAATTGACTAACAAACCCCANGGGTCTCTTNTCCCCATATAAAACCC  
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SEQ ID NO: 3833 GCGTGGTCGGGCCGAGGTACGCGGGGCTCTGCGAGCGTTATTTCAAAGAAG  
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ACCTGCTGCTTTTCTGGAGCGCTTACCAGTGACCAAGAGGAACAGAACACAGAGCAGCCTGGCAG  
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SEQ ID NO: 3834 GGTACACCATATAAACAGCAGATGAAGTCGGAGAGATAGTCTAATACACTTA  
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SEQ ID NO: 3835 ACCGCGCTTGCGGTAGCTGGCCCCAGACTTCTGTCTTTTCAGCTGCAGTGAA  
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SEQ ID NO: 3836 ACTTGTTGACTAGAGTTCACTCTAGGGTGATCTATCTGTGTCTTTTGCTGGGG  
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TGTCTGGTGGGAGGAGGTCTGTATGCCACTTCTGTGAGAAAAGTGANGGAAAGAAGGGCAGTGAG  
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SEQ ID NO: 3837 GGTACTACTTCTCCAACTCATAGAATTTATGGACACTTCTTCTTCATCCTGC  
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SEQ ID NO: 3838 ACTCCTTCTGAACTGCCTCCAGGTCAGCCCCTGCCACGGCTGGATGTCTTCC  
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ATATGTGGATCTTGAGTAAAGCTGAATTCATCCAGAATTAACTTTTGCATTATTTAGGTGACAC  
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CCTGAACACACCATGTCAGAATTATGGCTAATCCCAAACCTGTAATAGAGGGATATCTGTGTATTC

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SEQ ID NO: 3840    ACACTGGCTGTCCACAAGGCCGCACCTCACAAATCCGGGTTTCTTTCACAAG  
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SEQ ID NO: 3841    GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGNATATAAACTATTTATTAAC  
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SEQ ID NO: 3842    ACTTTTTTTTTTTTTTTTTTTTTTTTTTTGAANAATCAGAATTTATTTCACTATGTG  
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NATCTTCATGCTGCTCACCGTCCTTAATGATCTTCCCTGCTATTGGCATTTCGGTTAAAGATGTTCCA  
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SEQ ID NO: 3843    GGTCCGGCCGAGGTACTTTTTTTTTTTTTTTAATGTTGCACTTGTAGTTTCATT  
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SEQ ID NO: 3844    ACTCTGCCAGGCATTTAACATACATTATTTCACTTGTTTTCATGATTAAATTCA  
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SEQ ID NO: 3845    GGTACGCGGGGCTTGCGGTGCTGGGCAGCAGACCGTCCAAACCGACACGCGT  
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SEQ ID NO: 3846    GGTACTTGACAGGAAGTGTGGCGCTTGTGTCATTGTTGCTGCTCCAAGTT  
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SEQ ID NO: 3847 ACATAATCGTTTTGTGGAGTCGGCACAGTTCAGGTTATGGAGGCACGTAATTC  
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GTTAACGTTTAAAGGCAGCTAATGGCCAAAACAGGCAAGTCAAGAAAAGTGCTGGNTTGGGAGG  
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GCGAAGCCCCAAACACGCTCATCAATGAGANGCCAGTGGAGGC

SEQ ID NO: 3848 GGTACTCTGTGAAGAACAGAAATGATCATATTCTTATGCATCTATCTGTATGG  
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AACAAAAATGCCAAGTTGTCCTGAGCCCTTCTGCGTTGTTATGCCACTTCCCTACTGCTCATATGC  
ACGCTGGCTCCCCGCGCACGCAAGGATGAGTATGGGCCATGGGCCCTGTAGAGCTGCTTACCT  
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SEQ ID NO: 3849 GGTACCAGGTATGTCACCTTTTGGGTTCCGTCACCTTGGTGTGTAGGTTATCTC  
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SEQ ID NO: 3850 GGTACTCCCAATATACGATAGGGTTCATGTTATAGGATTCAATTGTAACATTA  
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SEQ ID NO: 3851 ACTGTTGTCCATTTTCATGAGAGTAGGCTTGAGGACACCATGGGCAAGGATCT  
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SEQ ID NO: 3852 ACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCT  
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SEQ ID NO: 3856 GGTACTTGCCCTTCCCCAGAAAAGCGGGACTTGCTGCTAAGGGTGAAGGAC  
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SEQ ID NO: 3858 ACGCGGGGTCTTCTGCGGCTGAACCGCCCGGCTGAGCCGACATTGCCGGCG  
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SEQ ID NO: 3865 GGTACAACCAGCCAGATTCCAAGCGGCGCCAGACCAATAATCAGAACTGGG  
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SEQ ID NO: 3868 GGTACATCACAAACATCGGACAATGCAACAAAATCACCAAATGAAGACATC  
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SEQ ID NO: 3870 GGTACGCGGGAAGTTATCTATAAACTATAACCTCTCCTTCATGACAGCCTCCA  
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SEQ ID NO: 3872 ACGCGGGGAAGTCAGTTTTCAAAGGGCTGACCCTTGGCCTATTATGTTTCTGA  
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SEQ ID NO: 3873 ACATGAAATTTTGCAATACTACATTCACTTTATTGTTCTTGTGTTTTGCATTTA  
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SEQ ID NO: 3874 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTCATGTTNGATGTTCCAAGATGAC  
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SEQ ID NO: 3875 ACGCGGGGTCTCGCGAGATCCCTACTGGCTATAAAGGCAGCGCCCCGGAGAG  
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SEQ ID NO: 3877 ACAATACCAATTGATGGAAATTTTTTACATATACAAGACATGAACCTATTGG  
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SEQ ID NO: 3878 ACAGGCCTTTATGTGTGGCATCCCCCTGGCTATTGTAATACTGCATAGGTGGC  
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SEQ ID NO: 3879 GGTTCCTTTTCTATGTTTAGATACACAAATACCATTGTTAAAATTACCTACTGT  
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SEQ ID NO: 3880 GGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTTCGACCGC  
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SEQ ID NO: 3881    ACCAATGTCTAAATAAGGTTTAGAATAGATATAGCTTTCATTTTACTGCTCCT  
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SEQ ID NO: 3882    ACGCGGGGGTTCGGTAGAGGCAGAAGGAGAAGGTTCGGGTTGTAGAAGCTGGG  
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SEQ ID NO: 3883    CTCGGTCAAGTCTGCACGAGACAGCTTCCTGACATTCTCACTGGGCCCCCTCCA  
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SEQ ID NO: 3884    CCCGGATGTTGCGGACAGTATGAGGCAAGCGCAGGGGGACGGGGACCAGCA  
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SEQ ID NO: 3887 GCGTGGNCNCGGCCGANGTTNNCNGGATCGANATGAAGGTNCAAGACCNGA  
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SEQ ID NO: 3890 ACTTGGGGAAGCCATCTCTATCATTTTTCTTGTA AAAATCTTTTCGGGTCCATGC  
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SEQ ID NO: 3891 GGTNCAACCAAGTTACTTTTCTCTTACTGAATTTTCAATATGTTTACATATTT  
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SEQ ID NO: 3892 ACTGTGCATTTCTCTACTTGCATGGCCAATAAATACAGCTACGACCTGTTTG  
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SEQ ID NO: 3893 GTACGCGGGATTGGCACATGGGTGGACACGGATCTGCTGGGCTCTGCCTTAA  
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SEQ ID NO: 3894 GGTACCCCAATCTGAAGTCAGTAAATGAACTAATCTACAAGCGTGGTTATGG  
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SEQ ID NO: 3895 GGTACTTATTTNGGAAATNG  
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SEQ ID NO: 3896 GGTACTGTCTGTCTTCACATTCATATTCAGATTTATATTTTCTGGAGTTAAAT  
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SEQ ID NO: 3897 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGATATTTCAATTTGGTTCTTTTTATTAG  
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SEQ ID NO: 3898 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGAAAATGTTTATGGTTTTTATTTTTC  
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CAGCTTTCAGTTAAAAAAGAANAAGAAGAAATGGCNAAGAGAAAGTTTTTCAAATTTCTTTCTTT  
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SEQ ID NO: 3899 TACAAATATTTAAGAGTGTTGATTGGGAGTAAGGGAATGTCAACTGCCAATA  
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SEQ ID NO: 3900 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGAANAATGTCATTGGTATTTTT  
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SEQ ID NO: 3901 ACATGGCCGCCGTCCTGGAATACCTGACAGCGGAGATTCTGGAGCTGGCTGG  
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CAAGAAAGGGGCCCCGAAATCCAAGAAGAAACAGGGTGAAGTCAGTAAGGCAGCCANNNCNTNC  
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CAGAACTGAACCTTATTCACAGTGAAATCAGTAATTTAACCCGGCTTTTGAGGTGGANGGCCTTAA  
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SEQ ID NO: 3902 GGTNCTTTCCTGCCTTTTAGTTCTGTGCACAGCCCCCTAAGTCAACTTAGCATT  
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SEQ ID NO: 3903 GGNACAGTGATTTGGCTATAGACTCTCGCCCCTTCAGGGCANACTGTCCTCAG  
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AAG

SEQ ID NO: 3904 GGTACTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGTTTTTTTTTTTTTTTTTTTTTTTTTTT  
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TNTTCTCTGAAATTACATAAAACAATGCAAANGGAAANAATCCAAGTNTAAATNTNTAACA

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SEQ ID NO: 3905 GGTACACTGCCAGGCAAAGCGTCCGGGCAGCGTAGGCGGGCGACTTAGATC  
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SEQ ID NO: 3906 ACTTTTTTTTTTTTTTTTTTTTTTTTCAGNCTTGATGTGTGATCTTTATTTTGTA  
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SEQ ID NO: 3907 ACACAGAGTAAAATGTTTTCTTTTTTTCAGGACCTTGAACCTGAATCTTGCAC  
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SEQ ID NO: 3908 GGTACTTTTTTTTTTTTTTTTTTTTTTCCATANAAGGAGGAAAATATTTATT  
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SEQ ID NO: 3909 ACGCGGGGGCAGAGCTGCGGAAGATGAATGCCAGAGGACTTGGATCTGAGC  
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SEQ ID NO: 3910 GGTNCCATCTGCGCCATCCTGGAGAACTACCAGACAGAGAAGGGCATCACTG  
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SEQ ID NO: 3911 ACACAAAGAGGGGGTGGGTGTGCGGATGCAGAGTGTGTGGCCTGATGCTCCAC  
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CAGGTAGTTTTGAGGGGATACATCCTAAGAGCAACACCCATTCCAGGGCAGTAGGAAAGGAAAG  
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SEQ ID NO: 3912 ACCTTTGGGGCATGGGGGCATTACATGGGATGCTTGTGTAATCGACCACCTA  
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SEQ ID NO: 3914 GGTACAAAATTCAAATACCAACAAAACCTGATCTGTGATGATAGAAAGCATAT  
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SEQ ID NO: 3915 ACAGTGTTCCAGCCATCCTGCTTGTTTTTCCCTCCAATACCTCCCAGAACAG  
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SEQ ID NO: 3917 GGTACAAAGGCAAAGTAGAATAACAAAAAATATTTTACTAAAACATAAGATT  
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 ATGACGGGGATNAGGGCAGAATTAATTTTGTAT

SEQ ID NO: 3918 GGTACTTGGATTATGGAGAAGAGAATTGGAAGAAACAGACATCTCAGTGCTT  
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 TTGAATCACTTCTGACTCCACTATTTACATGGCATTTTACACAGTTGCACACCTATTGCAAGGGG  
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SEQ ID NO: 3919 ACATCTTCCAGAACGTAATGGTCATGATCCTGGTCTGGACACCAAGATCTTG  
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 GCCCTGCATTGTTATATCAAATCGACAGCAGACTTTGTATTGAGCATTTTGACAACTTTTAGTTG  
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 GATTTGNGGTATCATTTCTATCACTGNCATTAGCCTGCTTTNCTTGCTAGGCGTGACTTGGTTCTTA  
 TCATTAACCAAGGGTGCTTCAAATTCCTTCTTACATTCTTGGTGCATTANCTNNAGGAACAAATG  
 AGTGGGGAACCCCTTTTTTANTTANTTGCCC

SEQ ID NO: 3920 GGACCTCTGGACCCACTCCTGCTTGGGGTCGCCACAGAACTGCTGGCCCTTCT  
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 GGTTCTCAGGAATTCTCTTGGAACAAAGAACATGCAGCAGGGAGAGGGGATGACCACAGAGCC  
 CGTAGGGATGATGTGGTGGGCACAGACACCAAGGAACAGAAGGCTGGTTACTATGGTCATCAGGC  
 CTGCCATGTCTCAGAGAGCAGAAGCACCAGCTCGGGGCTCAAAGCTGACGTGCAGGAGGAAAGG  
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SEQ ID NO: 3921 ACTTTTTTTTTTTTTTTTTTTTTTTTGGGGAAACCATGATTTTTTATTAATTTTATA  
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 GACAGGCCAAGGAGCGGGAGGTGGGGCAGCAGGCANTCCTGCTGGTAGGAGCCCTGAGGATTT  
 CCCAGCTTGTGTGCGCTGCCTCTGGCATCCTANAGACCCGGATTTACTCAGCTAGGAGAGAGGATG  
 GATCACAGGGTCTAAGGGTGGCCATTAGAGGTAGAAGATGGAGGGGCGGCAGATTCTGGCAGG  
 GCAGCANAGGGCTCANTGGCCATGGCTTGAGGGGTAAAAAATTNAGGACATCCCCCAGTGCTGCC  
 TCACCAAGGCTTCTTCCGAANAAATNATTTGAAAATTTNGTGGNGGNGGGACCTTTCTTCCAAGGG  
 GCCTTTTTGCGGAGTTTTTTTCAACCANAACCCAANCANGGNTTTTAAAAAACCCCANCTTTCC  
 CAAANCCCTNAAAAAACCTTGATTTTCCNTTCAAAGGAA

SEQ ID NO: 3922 CTTAGCNTGGTGCGCGGCCGNGGNCGCGGTATCANANCCATGCGNAGAGT  
 CCGGAAGACAGACAATAATCGCATTGCTAGAGCCTGNGGGGCCCGGATAGTCAGCCGACCAGAG  
 GAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAATCAAGAAAATTGGAGATG  
 AATACTTTACTTTTCACTGACTGCAAAGACCCCAAGGCCTGCACCATTTCTCTCCGGGGGGCTA  
 GCAAAGAGATTCTCTCGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTT  
 CTCCTGGACCTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTGGCCCATGCCTTGNC  
 AGAAAAATCCAAGGCCATGACTGGTGTGGAACAATGGCCATACAAGGGCTGTTGCCAAGCCCTA

NANGTCATTTCCTCGTACCTTGCTTATGGCAAGCATTNGTCTATTTTGCANAATGTTCCATGTGTAA  
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SEQ ID NO: 3923 GGTACGCGAAGGATATCGGTTTCATTAAAGTTGGACTAAATGCTCTTCCTTCAG  
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SEQ ID NO: 3924 ACAAAGCTAAAGAAAAATTGTGGTCATTGATGATGGAATATATGACTTGCAG  
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ACATGCTTTACCCTAAAGAAACCTGGGGCTAGGGGAAATGAAAGGAAGCCTGAAGACTGACTACC  
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TAATCCCTACCCCAAGCNCCATATAGATAAGAAAACCTCTCCAGTTGAGCTGAACCACANACGG  
TTGGCTGATGTTCCCCCACCCCATGACACAGTTNCTTGAATNGGAAGAAGGNGGACAACAGGGNG  
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SEQ ID NO: 3925 GGTACAGACAGCTGGTGTTCATTTTGACACCTGGGGCCACACACAAAGAAAGC  
AGCCCAGCTGATGCTGCCAAGAGAAACTGCTGAAGGGCCAGACACATTCCAGCAAGGAGGGGTG  
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CAGCAGNTGACCCATGAAGTTGAAGTTAGGGGATATGTTGGATTTTTTTCATTTTGACAATGTCATA  
GGCATCGTTTCATCGACAGATTGAGCTTCTGCATAAGGTANGCCACANTCCAGTGACTGANCGGCT  
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TATTACGTTTTCTGGACACCCACACGGATTCTGGTNTGGCACATTTCCTTATTCCTTTTGGCCCAAAN  
ANNTTTTTTNACNTTGTNTNANTNCCCCAATTTTGGG

SEQ ID NO: 3926 ACTTACTTGGAGAGACATATGTCTGAATTTATGGAGTGTAATTTAAATGAACT  
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ATGTTTCCATTGGAATTGTTGGTAAAGACTTGGAGTTTACAATCTATGATGATGATGATGTGTCTC  
CATTCTCGGAAGGTCTTGAAGAAAGACCACAGAGAAAGGCACAGCCTGCTCAACCTGCTGATGAA  
CCTGCAGAAAAGGCTGATGAACCAATGGAACATTAAGTGATAAGCCAGTCTATATATGATTATC  
AAATATGTAAGAATACAGGCACACATACTGATGACAATAATCTATACTTTGAACCAAGTTGC  
AGAAGTGGTGAATGCTATGTTTTAAGAATCAAGCCAGATGTGAGTTTTTTTCAAGCACCTCTGG  
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GGATGGGGGTTCTAAACCNAAGGTTTTTTTTNTAANAAAAATANG

SEQ ID NO: 3927 ACTGGATGTCAGGTCTGCGAAACTTCTTAGATTTTGACCTCAGTCCATAAACC  
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GGCAGGTCCGTGGGAAAATCAGTGACCAGTTCATCAGATTTCATCAGAATGGTGAGACTCATCAGA  
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CACATGGTTCATCATCTTCATCATCCATATCATCCATGTGGTCATGGCTTTTCTGGTGGACTTACTT  
GGAAGGGTCTCTTGTTTAAAGTCATTGGTTTCTTCAGAGGACACANCATTCTGTGGGGCTTAGGA  
GATTCTGCTTCTGAGATGGGGCAAGGGTTANCCATGTGGNCCCCACATCTGGGTATTTGTTNNNAA  
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NNGAGGCAAAACCCAANTACCTGGCAATTTTTATGGNG

SEQ ID NO: 3928 GGTACTGAGGAGAACTTCATGATGCTGCCAGCAAGCTGCTTAACACAGTTG  
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CCAGTTTCTCTTAAAGCCCTTTCATGATGATGATGATGGGACTCAATTGTTTTTTATTTCCGTCA  
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SEQ ID NO: 3929 GGTACTGGGAAAAGATCTAATCTGCCGTGGGCCTGTCTGCCAGTCCCTGGGG  
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CAGCCTGTGGTTACAGTGCAGACAGGCCATGTGAGCCACCGCTGCCAGCACAGAGCGTCTTCCC  
CCTGTAGACTAGTGCCGTAGGGAGTACATTATTTCCAACAAGCTTAAGACTTACCATGAATGGGCT  
CATTCATACAAAAACACTCACACTAATCTTTTAAAACAGTAGTGCATACATTATACTCCTCCT

ATAAAGCCAACTTTGATTAAAAACCACTNGTTTTCAAAGCTCAAGTCTTTGATTTTGAAGAAGAAC  
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SEQ ID NO: 3930 ACATCTCCGCTGCAGATCGTTTCACACCTGCTTTTCTCGGTTCACTTNTGGCT  
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CCAATGAATACACGGGAGTTTCATGGAGCGAGGATCTGTCTTGTGGTAACGTTGCTGGCCATCGTG  
TTTGATGGTAAGGTTTCTCACAAGCCCGAAAAATGTAAGTGAAGATCAAAAAAATCTNACAAGAA  
GGGAGGGGAGAAGAGATTNGNTTCTGAGTCTNCTACTCCCCGGGTCTGCNTNAAAAAACCTCT  
GCTGGTTGGAGCGCGNAAACGCGGCCAAACGGTTANNTTTTNGCNTTTTAAAAAANTNCCCCGG  
NCCTTTNTTTNTTTNTTTNCTTTTTTAAAAAACAG

SEQ ID NO: 3931 GGTACTTTTTTTTTTTTTTTTTTTTTTTTGGTCACTAAATTTATTTTAAAAATCATA  
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GACTATTGTACTTTTTCTCCCTGTCCCACCCCCCAAATGTTACAGTGACCACAAAGCAAGNGTT  
CACAATAATTACATGGGGGGAATTTTTTAAACCAACAATAACGAAAAATAAAAATCCACTCAC  
TCTGCTGCTGTTTCAAATTTCAATGTTAGTTTTTGCACGCCCTTCCCCCCCCCAACCTGTTTGT  
AGGAACATAAACATTACATNTGGTGAACAGCAAGATTTCACTNCACTCAAATGCAGAACACCT  
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CAGTTCTTCACTTGTCTTAAAAAACTTTCCANAATACTGNTTCACTTTAAAAAAGAAAAAA  
ATTTTTNANTANAANCTTCAAAAATTTNGTTCTGGTT

SEQ ID NO: 3932 GGTACACCCCAACCCCAACCTCAGTGGAACAATGCCAGGGATTAGGCT  
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TCTTTCCAAGATAATGGTGTAGGTGTTACACCCCAATCTTTCATGTNCACTTCTGCAAGGNTCCT  
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SEQ ID NO: 3933 GGACAGACTGTTTTCCGGATGGACTGGTTTGGGAACACTGTGCTGGGGGAAG  
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SEQ ID NO: 3934 GGTACTTTTTTTTTTTTTTTTTTTTTTTTAAATCTTTCAATCTTTATTTAAATGC  
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AAAAGCAGNGATCTGCTCCTCCAGCATATNTGTTCCAACCTTTATCATCTTCACTACNCACTGTAT  
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AACGTTCTTCCCTTANCCCTCTTGCTTCTTCACTTCTCCTCATCATCAAGACCCAAAGAGGGNCA  
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SEQ ID NO: 3935 ACCTGTGAACCAAGTGTTTGGGCAGGATGAGATGATCGACGTCATCGGGGTG  
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TTCCAAATTTNGGCCATGGGCCGTTTCAAAACATGGANGAAAAAAA

SEQ ID NO: 3936 ACAAGCTGAGTATCCCTTATCCAAAATGCTAGGGACCAGAAAGTGTGTTTGGAT  
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GNGCTCAAAAAGATTCAAATTTTGAAGCTTCTGGATTTCAAATTTTGAATTAAGAGATGCTCAAC  
TNGTAGTATCATTCACTCTGGCTTATGTATNGACCTTGNACTGGTTTTTCAANNGGGTAAAAATG  
AAACCAGCTGTGGATTTCAAAACACAGTGTATTCTAANATCATCTAAAATCCATGCCGGATTTTA  
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SEQ ID NO: 3937 GGTACAGATATCTTCAAAGGAGGAAGAAGAAAGGGAAAGCAGATGGTGGAG  
CTGAATATGCCACTTACCAGACTAAATCAACCACTCCAGCAGAGCAGAGAGGCTGAATAGATTCC  
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AAAGGGGCTTGAAATTTTTTTTTNGTCAAAAAATTAATGCCNCCTTTAANAATATTTTTTTCNCCA  
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SEQ ID NO: 3938 GGTACATTTAAGAATAAACTTTTGTAaaaaaaAGAAAAATCTTACAGTGGCTC  
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ACATTATTTACAGCAGTATATCCCTGTTTTCTGGAGTATTCAATGGGAGGTTCAAGTCAAAAANAAAA  
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CACTTTTTNGTGACCTCCTTTATTGNCATCCCGGGAGG

SEQ ID NO: 3939 ACATCAGCAGCAAACCTCCTGTGCATCCCGGTAATCACGGTTCTCCATCTTCCG  
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SEQ ID NO: 3940 ACTTGTCTATATTGCAAAAGTCTTGATTGAGGTGGTGGCATTTCAGCTAGTTC  
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SEQ ID NO: 3941 ACTGCATGTTCTGTTGTGGTGAGGGAAAGAAACATGCTTTGAAGGTTTTCCCT  
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ACAGGATCTTGGAAATGTTTCTAGGGTGTGTAAAAATTAACCAGGGGGGAATGAAGCACATTTT  
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SEQ ID NO: 3942 TGTACGCGGGGCTTTTTCTAACTCCGCTGCCGCCATGGCTCCTGTGAAAAAG  
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CCTGTANAANATGGAATCATGGATGCTGCCAATTTTGAGCAGTTTTTGCAANAAAGGATCAAAGT  
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GGATTNTCTTTTGANATTCTNCTGNGGGGGGATCNANNNAAAAATNTGATNATTCTTAGCCTANAT  
GTGT

SEQ ID NO: 3943 GGTACAGAGAAGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTT  
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CAGTTACATTGTCTTACTCTCTTTTACTTCTCAGACACTTCCCCACCCTCATAGAACCTGTTGCAT  
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SEQ ID NO: 3944 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTCTGGAAAAGTGACTGCTTTAATG  
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NNANGTTAANCTCCTGGTAG

SEQ ID NO: 3945 GGTACGTGCAGACGGTGGTAGTTCTGGAGTCCTGGAAGCCACGAGGTGCTCA  
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TGCGCACATCGTGCTCACAGTTCCGTCCGTAGAAGGAGGGCAGGCAGGCAAAAAGGACCCACG  
CATGCAGGTTCCCCCATTCAGGCAGCAGGTTCTGTTTAGCTCCTTACTGTGCTGTATCCCCATGGGC  
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SEQ ID NO: 3946 GGTACAAAACACAACAAAGGTTCAAACATCGAGATGTTCCCTTAGCAAGGCT  
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SEQ ID NO: 3947 ACCAAATGTCACACTGGCTGTAATCAAATCGCCCAAGAATAGTCACATTAGA  
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SEQ ID NO: 3948 GGTACCTTCAGTCTACACTTTAATCCCACTGAGTTAACTTGCAGCTCACAGCT  
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GACACAAACATAAAAAATCNTTGTGTGATCTGAANTCCAATCCANACACGATGCTTATTCTACATA  
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NAGGAATCCGAACCTCGTANCNANCTTGGCGTAATCATTTGGGCATNGNTAGATTNCGGGGAGA  
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SEQ ID NO: 3949 GGTACTCCGGCAGGGAGGGTGACAAGCACACCCTGAGCAAGAAGGAGCTGA  
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TTGGAATAATTANTATNAAGNCCGTTTTGCNNACTANGGCTCCAGTNATTATACTTGCCCGGCGGCG  
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SEQ ID NO: 3950 ACAATAGAGTTAGAGCCAAGGTCCTAGAGGCGGATAGGTGGATTCTTGAGGG  
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CAAACAGCTCTGGGTGGGAAGAGGGAACCAGGATATCCTCCTGTGTCCTTCTTTCTGCAGTCAT  
CCTGGGTGGCTGCCAGATGGAATTCCTTGGATATCATTGCTTGGAGGTCCCCTGCATGCCAGAAAT  
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CNNACTTGCGNCGTTNTAATGGATCNACCTCGNACCAACTTGGCNAAATATTGGCANAATNTT  
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SEQ ID NO: 3951 CGAGGTACGCGGGGCTTGCAGGCAAGAGTGCTGGAGGGCGGCAGCGGCGAC  
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TTNCCTTTTTTATGACTGGGNCCTGGGTGCAATAAAATTTCTGACAAAATTGAANNNTNNTTTN  
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SEQ ID NO: 3952 GGTACGAAAAGCGGCAGAACTAGCTCTGAAAACCTCTGAGCAAGGTCTGTGTG  
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GATCAGCAAAAGTGCAGGAGCCATGTTGAAACCGCATGCACCAAACTCATTTCCAGCTCTGCTAG  
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GCCTGACANATCGGACCAGNGGGATTAAAAAATTTTGGCNNTTGCTNTTGGGCCATTANTTCGGC  
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SEQ ID NO: 3953 GGTACGAGATGGCAGCCCTCCAGAGCCCTTCTATGGAGATAAGATGAATCT  
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ACGTGCACCAGGTGGCCAAGCAGATGCACATCTGGATGTCCAGCACCTGAGCGTGGATGCACCGT  
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SEQ ID NO: 3954 ACGCGGGAGCTCATGTAGGTCTTGATTGGACACAGTGAGTTTCAGATGACAG  
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SEQ ID NO: 3955 ACAGACAGGCTTCTCTGCTATCCTCCAGGCAGTGTAATAGTCAAGGAAAAGG  
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SEQ ID NO: 3956 ACNNGGGGGCNGCCGAGGCGTGCACATGCTCGCCAGCCACCCCCAGGACG  
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TTAAATAGATACAAATGTCTATCAACTTTAATCAAGTTGGAACCTATATTGAAGACAATTTGNTAC  
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SEQ ID NO: 3957 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCAAAGTGCTTTATTTACACAGAGC  
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ATTATTGGCANNACTTGCNNTTGCNTCNCCTGGATTGGACACTGNTTTTCTTGGCCCAACCTTTG  
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SEQ ID NO: 3958 ACGCGGGGGCTGACTCTCTTTTTCAGACTCAGCCCACTTGACCCCAAGTGAATT  
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GGATCTCCTNGGCTTAGTGGCTGAAGACTGNTGCTGNCCGATCGCCTCAGAAAGCCCCTTGGACC  
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SEQ ID NO: 3959 ACTGNTTACAACACAGCTACTCTTCTCAAAATAGTCCTTTTCTTTCTTGAG  
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SEQ ID NO: 3960 ACGGCACTTGGCGTAAAGCCGCTTCCCTCAAGAGTAACTACAATCTTCCCAT  
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SEQ ID NO: 3961 ACGCGGGGATTACGAGATTGGCTTGGATTCTGTCCGATGGACTTGGGGCTAG  
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GAAGGAAAAGACATCAACCCCATATTCTCAGTATATTTCTTCAGTGCCATGGTATATTGATCCT  
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SEQ ID NO: 3962 ACTTTTTTTTTTTTTTTTTTTTGGCCGTTTCCACACCTGCCCTTTATTGGTCTCTTCT  
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TGCTTTAAGNAAGCCAAAAAAGAAANNCCTGTCNTGCCATTANCTCAAATTTTGGCAAGGGGAAAG  
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SEQ ID NO: 3963 GGTACTTCCCAGGAACCTGGGGACCTACGGGATATCGGGGCTGGCAAAGGCAA  
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GAACAAAATGATGGTNNNTAAACCAAAAACACANCTTTTTTATTAATAAAACAGNTTTTCCCGTT  
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SEQ ID NO: 3964 CGAGGTACATTTCCCCGGGAGAACTCGTCCATTCCGGTGGTGGCGGCCGTTATT  
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SEQ ID NO: 3965 ACTTGTTGACATTAGAGGAGAAATGCCAAGGAATTTAAGAGAATACATGGTT  
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SEQ ID NO: 3966 GGTACATGACAAGGTGCGGCTCCCTAGGCCCTCCCCTCTTCAAGGGGTCTA  
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SEQ ID NO: 3967 GGTACTTTTTTTTTTTTTTTTTTTTGGCAAGCACGTGCACCTTATTGAATGACAC  
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SEQ ID NO: 3968 GGTACTGCAAGTCAAGGGGACTCTTTGCAGGCGTGTCTTTAGAAGGGAGCTG  
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SEQ ID NO: 3969 GGTACACTGTAAATGCTCAATAAATATTGATGATGGGAGGCAGTGAGTCTTG  
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SEQ ID NO: 3971 ACACTGCCAGGCAAAGCGTCCGGGCAGCGTAGGCGGGCGACTCAGATCCC  
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SEQ ID NO: 3972 ACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTTCGACCGCGAT  
GATGTGGCTCTGGAAGGCGTGAGCCACTTCTTCCGCGAATGGCCGAGGAGAAGCGCGAGGGCTA  
CGAGCGTCTCCTGAAGATGCAAAACCAGCGTGGCGGCCGCGCTCTCTTCCAGGACATCAAGAAGC  
CAGCTGAAGATGAGTGGGGTAAACCCCCAGACGCCATGAAAGCTGCCATGGCCCTGGAGAAAAA  
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CTTCTGGAGACTCACTTCCTAGATGAGGAAGTGAAGCTTATCAAGAAGATGGGTGACCACCTGA  
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CTTTGGAN

SEQ ID NO: 3973 GCCTGTGCAGTGGGACTGATTGCCGTGGGTGTCGGGGCACAGCTTGTCTCTGA  
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CACGTTTGCCATCTTTCTGTCTCTTATCATGTTGGTGGAGGTGGCCGCAGCCATTGCTGGCTATGTG  
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AAACAACCACACTGCTTCGATCCTGGACAGGATGCANGCAAAATTTTAAAGTGCTGNGGGGCTGC  
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CTGGATTAAATGGTACTGGGGGCTGGGGGAATTANTTTCAACGAANAAGGCGATNCNTAAGGAN  
GGGTTTGTGGAAAAAATNNGGGGCTTGCTTAAAGNAAAANTGCTTGGNG

SEQ ID NO: 3974 ACGCGGGGAGAGGACGAAAAAATAACCGTCCGCGACGCCGAGACAAACCG  
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CCTGCCTACTCAGAGCTCTATCGTCCGAGCTTTGTGCACCCAGGGGCTGCCACAGTCCCCACCATG  
TCAGCCGCATTTCTGGAGCCTCTCTGTATCTTCCCATGGCCCAATCTGTGGCTGTTGGGCCTTAG  
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GTGGAAGGAGGGTATGATGCAAGTGCCAGATTTTGGAGCTTGGGCTACTGNTGGCNAAAATTCC  
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SEQ ID NO: 3975 ACCGACCATAGAGCAAGAATCAAGATTCTGCTAACTCCTGCACAGCCCCGTC  
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SEQ ID NO: 3976 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCTTTATTTCCAT  
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CCCATTATTG

SEQ ID NO: 3977 CGAGGTACGCGGGGGAGATGGCAGATGAGATTGCCAAGGCTCAGGTGCGCTC  
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TGCATTGGCCTCCTGGTTAAACACGTTTGGGGATAATTTTCTCTTTTAAAGCCATGATTAAGTTA  
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SEQ ID NO: 3978 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTAGTATCGATCTCTTTAATTTTAGGCC  
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GNCTTAATN

SEQ ID NO: 3979 GGTACGCGGGCCTTGCTCCTGTGTGCTGTCTAAACCACTGGTGGATGAATACT  
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NCAGGGCTGNGGCTACCATGTNTCTCCGCGGGTGTGCTGGGCTGTGCGCCTGGACCTTGCANCC  
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SEQ ID NO: 3980 ACTGTTGTCCATTTTCATGAGAGTAGGCTTGAGGACACCATGGGCAAGGATCT  
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SEQ ID NO: 3981 GCGTGTGCGGGCCGAGGTACAAAGAAAGTTTAAAGTCAAGGCCTCACCAATT  
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SEQ ID NO: 3982 GGTACGCGGGGGTGGCAGCTTCGGATAAACGCAGGACTCCGCCCCGGCAGCCC  
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AAAAACAGTCCTTTCTACTATGACTGGCACAGCCTCCAGGTTGGCGGGCTCATCTGCGCTGGGGTT  
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AAAA

SEQ ID NO: 3983 GCGTGGGTGCGGGCCGAGGTACTGTTTATTAACCAACCAGCTTAGAAAAATA  
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SEQ ID NO: 3984 ANTTGTGACAGGCAGACGTGATTGCAGCCACGAACACGATGAACTCACTGAA  
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SEQ ID NO: 3985 ACTTGTGACAGGCAGACGTGATTGCAGCCACGAACACGATGAACTCACTGAA  
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TGCGTGCTGCCCTCGCTGCCGAATATCGGGAAAAGACGTCTATGATCATGCCCATGGCTGTCTCT  
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SEQ ID NO: 3986 ACCGACGTTGAGGTGGCTGCTGACCTTGGGTCTCATCTCCTTGATTTTCTTTAT  
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SEQ ID NO: 3987 GGACGNNGGGTCTCTCTNCGGTCCGTGCCTCCAAGATGANAAAGAAAAGAA  
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SEQ ID NO: 3988 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTACTTCTTATGGCCAAAGACCCAGC  
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SEQ ID NO: 3989 ACTTTAAGGGAACACCAACTATGTTGTGATAGAAGAAAGAGAAACCTTCA  
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SEQ ID NO: 3990 GGTACTTTTTTTTTTTTTTTTTTTTTTTTCGGTATCATAAAGAGNGNTGAAGTTTAT  
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SEQ ID NO: 3991 GGTACATTTTTCTCAAGTTAATGTATAAAGAAACTGCATTGATGTAGATAAAT  
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SEQ ID NO: 3992 GGTACAGGTGCCCTCTGTGCCTATTCAGCAATTCCTACTGAAGACTGGAGCG  
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SEQ ID NO: 3993 ACGAAAACAGAACCAATCTAAAAATGGCTGATGTTACTTTAGGAGCCTGAAA  
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TCNCNNTNTAATTTTCNACAAATTTANCCGAATCAAAAGGNTAAACCGGGNG

SEQ ID NO: 3994 ACATGGCAATTAGAAGTTGTCATGGCAAAAGAAAACCACAGCTGGCCTGCCA  
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SEQ ID NO: 3995 ACGGGCTCATGAAAGTGTTGTGAAGAGCGAAGACTTTTCGCTCCCAGCTTAT  
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SEQ ID NO: 3996 GCCGTGGGCGCCGNCAGAGNCCAGACATTTTCAAAGTTGCCAGTGTTACTT  
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SEQ ID NO: 3997 TTTTTTTTTTTTTTTTTTTTNTACTTTTTCTTTAGTTTATTGAAAGAAATGTTTA  
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GAGGG

SEQ ID NO: 3998 ACTTNTTTTTTTTTTTTTTTTTTTTTTTTGGAGAGGCAGACCAGCTTTATTTT  
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SEQ ID NO: 3999 CGAGGTACTTNTTTTTTTTTTTTTTTTTTTTTTTGGCTAACTGCTGCCACCACCAT  
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SEQ ID NO: 4000 ACGCGGGGAATTCATGACGACACGAGCCGATCCATCATCCGAATGTAAAA  
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SEQ ID NO: 4001 CGAGGTACACACCTTTGTCCACTGGGTAAATTATATTCATTATGCCCACTGCT  
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SEQ ID NO: 4002 GGTACGCGGGGGCTGACTCTCTTTTCAGACTCAGCCCACTTGACCCCAAGTG  
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SEQ ID NO: 4003 GGTACGCGGGGGAAACGACAGGGGAAAGGAGGTCTCACTGAGCACCGTCCC  
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SEQ ID NO: 4004 ACGCGGGGAAGAACCCCTATCAACACCAAGAGTCAGGCAGTGAAGGACC  
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SEQ ID NO: 4005 ACTGCTATGAAGCATCCCTTCCACATCAGATCAAAGACATCTTAAAGCCAGA  
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SEQ ID NO: 4006 ACTTTTTTTTTTTTTTTTTTTTTTGGCTGTAGGCCCGGGTGGTTGCTGCCGAAATG  
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SEQ ID NO: 4007 ACGCGGGGGAACGACAGGGGAAAGGAGGTCTCACTGAGCACCGTCCCAGC  
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SEQ ID NO: 4008 ACTTNTTTTTTTTTTTTTTTTTTCTTTTAACTGAAAGAGTTGACAATTTTATTT  
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SEQ ID NO: 4009 ACCATCCTTTAATAGATCTCATACACCAGAATTCAGATCATGAATGACTGACA  
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SEQ ID NO: 4010 AACTGCCCAGGCAAAGCGTCCGGGCAGCGTAGGCGGGCGACTCAGATCCC  
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SEQ ID NO: 4011 GGTACGCGGGGCTCCAGAAGTTTCCCCCTTGGGCGGTGGTGGAGGTGGTAAC  
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SEQ ID NO: 4012 CGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAGNTAGGAAGAAGAAT  
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SEQ ID NO: 4013 GGTACAAAAGCTTTTCTGATGCTTTTCATTATCACAGAACACACCACCTGTAA  
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SEQ ID NO: 4014 ACGTAAAGTTAACCTTCCAATTGTCTGAGCTGTGCTCACTGACTTCATGACAG  
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SEQ ID NO: 4015 ACGCGGGGAAACGACAGGGGAAAGGAGGTCTCACTGAGCACCGTCCCAGCA  
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CAGCACCATCCTTCCAAGGTCCACCGNGATCAACATNCAACAGCGAGACCTCCGTGCCCGACCATG  
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SEQ ID NO: 4016 GGTACCATTCCGACGTTACAATGGTGGAGTTGGCAGGTGTGCGCAGGCCAAG  
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SEQ ID NO: 4017 ACGCAGCCCCCTCACACACTGCTTCATTTTGTGATTTCTGCATTTCCAGCTGCC  
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SEQ ID NO: 4018 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTACTGGCTAACAGAATTTTATTGT  
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SEQ ID NO: 4019 ACAATATCATATATCTGGTATACAAAAAAATCGCTCATTATTTTAGCCCTAC  
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TCTTACCTTTTTTTCATAACTTCTCTTAATTTTTTTTTTTTTTTTTTTTNNANAGTCTTCTCTGTCAACC  
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SEQ ID NO: 4020 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGGCCATATCATTCATGACCAAAAAA  
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SEQ ID NO: 4021 ACGGAGGAGTTCCTGGAAGCCTTCATGGATCTGAGCCTCCGGAATCTCCGTG  
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SEQ ID NO: 4022 ACTGATTCATCACTGTCAGATTCTGTTCAGACCCTGTCTCAGCCTGGGGCTG  
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SEQ ID NO: 4023 ACAGACATGGCGGCGGCTTTTCGGAAGGCGGCTAANTCCCGGCAGCGGGAA  
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SEQ ID NO: 4024 ACGCGGGGGAGTCACTGCTGCTCTTTGAGGCAATGCGCAAGGGCAAGTTTTTC  
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CCACCTGATGGCCATCAACACTTNTGTGCCCGGGTGGGAAGTGANTGTGGCACAAACCAACAATG  
GANCCCCATCTTCTNAAAAGCCTGTGTGCGTTANTGTGCTAAATACACANCCCCCNACCATTGGCT  
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SEQ ID NO: 4025 ACAGGCAGAGCAACCATCCTCTTCGTCACCCAGACGCAAGACAGTAAAGGA  
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SEQ ID NO: 4026 ACAAGTATTTATATCAATGAAAATTTCCATTGGTGATTTTTTGGCAGAATATT  
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SEQ ID NO: 4029 ACTTTTTTTTTNTTTTTTTTTTTTTTTNGCAAGCCATATCTGAAAAGCCATCTCTG  
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SEQ ID NO: 4030 ACGCGGGGGCGTCTTGTTCTTGCCCTGGTGTCGGTGAGTTTCTGCGACTTG  
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SEQ ID NO: 4038 ACCTAGAAGAGAGGCGGGTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTTCAT  
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SEQ ID NO: 4040 ACGCGGGGTCCGCCGCTAGTCTCCAGCTCCAAAATGGCGGCTGCCACTGTGG  
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SEQ ID NO: 4041 ACTTGCAGCCCTCGGCCAAACGGCCAGACGCCGACGTCGACCAGCAGAGACT  
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SEQ ID NO: 4042 ACATGACAAGGTGCGGCTCCCTAGGCCCTCCCCTCTTCAAGGGGTCTACAT  
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SEQ ID NO: 4043 ACNCGGGAGAAGAAGAGTAAGAAGGACAAGAAGGCCAAAGCTGGTCTGGAG  
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SEQ ID NO: 4044 GTTTTTNTNTTTTTTTTGGCCCAAATTTATTTTTATTTTGCACACATAGGAAAC  
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SEQ ID NO: 4045 ACCAAACGGGCAAGGACATCTCTACAAATTACTATGCGAGTCAGAAGAAAAC  
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SEQ ID NO: 4046 ACTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCTTTATTTCCATTGGTCCAA  
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SEQ ID NO: 4048 ACTCTGCCACAACTGATCACACTGCTTCTGGTAAGGGTCTGGCAGGAAGCT  
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SEQ ID NO: 4049 ACCGACCATAGAGCAAGAATCAAGATTCTGCTAACTCCTGCACAGCCCCGTC  
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SEQ ID NO: 4050 ACTGTTGTCCATTTTCATGAGAGTAGGCTTGAGGACACCATGGGCAAGGATCT  
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SEQ ID NO: 4058 ACGGTTTGGCCTGCAATGCTAATGGTCTCACAAAGCAGTCAAGGTATTTTGCTA  
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SEQ ID NO: 4059 ACAGAACATGATCAAGGGTGTTACACTGGGCTTCCGTTACAAGATGAGGTCT  
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SEQ ID NO: 4060 ACCACAAAGAATAGTCTCATTTGCACGAGAGACTCAAAATATTGGACTCTAGC  
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CGGGGACTGCCGGCCTCGCTGCCANACTTGTCTGGTTCTCATCGGAATCACTCTCTGATGAGGCC  
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CCA

SEQ ID NO: 4061 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTCCAAGCAGTATGTCTCAATAGTGGCCT  
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SEQ ID NO: 4062 ACACACACGGGAAAGAAACTCTGCGAGTCTGATGTGTGTCAGAGTTCCAGTC  
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SEQ ID NO: 4063 ACCCAAAGCCTCCCCAAGGCCACAGTAGTCATGCTCCCGGGCAGTATCTGCC  
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SEQ ID NO: 4064 ACAGTTTGCAGAATATATTCAGAAAAACGTGCAACTTTATAAGATGCGAAAT  
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SEQ ID NO: 4065 ACGACCTCATTGCCGTGTCCAATCATTATGGAGCCATGGGGGTTGGCCACTAC  
ACTGCATATGCGAAGAACAACCTGAATGGTAAATGGTATTACTTTGATGATAGCAACGTGTCCCT  
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ATTTTATAAGACACCTTCACCTTAGCAGTTCTGGTTCCCTCTGATGGAGGGACACGACCAAGCAGCTC  
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SEQ ID NO: 4066 ACAGGTTTCACTATTACAAATATATGATGTTAAACTAACAACTCATGACCTT  
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SEQ ID NO: 4067 ACAGCTACCAAGAGGCCAGAAGGCAGAACTTATGCTGACTACGAATCTGTG  
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SEQ ID NO: 4068 ACAGGTGCATCGTGCACATAAGCCTCGTTATCCCATGTGTGCGAAGAAGATAG  
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CTGTAGTGGTGGTCGGAGATTCTGTAGCTGGATGCCGCCATCCAGAGGGCAGAGGTCCAGGTCCTG  
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SEQ ID NO: 4069 ACATTTACTGGATTGTTTTTTCAGTTTGCAGCTGCCCTCTTGACATCCCAAATA  
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SEQ ID NO: 4070 ACTTTTTTTTTTTTTTTTTTTTTTTTNGCAGTAAGAGTAGCCAGGTGTTAGCCAC  
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CATTTCT

SEQ ID NO: 4071 ACATTGAAGCTCGGGTGACAAAAGGTGAGACACTCACCTAGAACAGTGCCGT  
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C

SEQ ID NO: 4072 ACGCGGGAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCAT  
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CAGACATTGCT

SEQ ID NO: 4073 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTCCAANATTTGTTTTATTTTATTATG  
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SEQ ID NO: 4074 ACGCGGGGGGGCGACTGAGCGGACAAACGGAAGTGTAGGTTACGGTCTGAG  
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SEQ ID NO: 4075 ACAAATCATATGTTAGGTCACAGAACAGGTCTTACTAAATTTTTAAAAATCA  
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SEQ ID NO: 4076 CCCTAATGATAACCATTTTTAGAAATTCATCACTGTAGAATCAGAGTCTG  
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SEQ ID NO: 4077 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCCATATCATTCATGACCAAAAAA  
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SEQ ID NO: 4078 ACTTTTTTTTTTTTTTTTTTTTTTTTTTCTCAAGCACGTGCACTTTATTGAATGAC  
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SEQ ID NO: 4079      ACAAATGTTTTTATTCAAAAANGCAAAATAAATTATCTGTAGGCATGGACA  
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GACTACAACCT

SEQ ID NO: 4080 ACACAAATGGTTTATTAAAGGAATGTATGGCCACATCAACCTAGCAAGGATT  
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SEQ ID NO: 4081 ACTTGAATGGGGCCACCATGTTTTCTCCCATTAGCCAGCCCCATTTCATCATG  
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SEQ ID NO: 4082     ACTAGAGCGCAGAGTTTCAGACTTGGATTATATAAATGCTTTCAACGTGTGGTG  
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SEQ ID NO: 4083    ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTATATAGGTCCTCATTTTACTGNGCA  
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SEQ ID NO: 4084    ACGCGGGCGGGGAGGCTTTGGAGGGCGAGGAGGCTTCCGAGGAGGCAGAGG  
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SEQ ID NO: 4085    ACAATGAAGTCTTTTCTCAAGCAATAATTGTTTCCAAGTGTCTGGGAATT  
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SEQ ID NO: 4086 ACGGGGGGCGCGTCTTGTCTTGCCTGGTGTGCGGTGGTTAGTTTCTGCGACTT  
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CAGTGATAGGGCAGAAGAATTTAAGAACTCAACTGCCAAGTGATTGGTGCTTCTGTGGATTCTC  
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ACCTCCCTGTTGGCCGCTCTGTGGATGANACTTTGAACTAGTTCAGGCCTTCCAGTTCACCTTGAC  
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CCAAAAA

SEQ ID NO: 4087 ACAAATGATGAAACGGAAAGACGAAGGAAATTTCCATTTTTGAAGAAAA  
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TANGGCCACCT

SEQ ID NO: 4088 ACTCTTTTAATGTGTTTATATTGGAGGTGAGGGTAGAATGTTTTATAAAAGGA  
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CGCTGCAATAATCACATTACCTTTCATACCATTCTNATNACCTTATTTACAAAGATACTAAAGCNA  
CNATCCCTTTCCAATTCATAAANTGGTTTACNTTGAAATGGNTCCCAATTGGNCTTATCTTTGGA  
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SEQ ID NO: 4089 ACGCGGGGACTGCNCAGGCGCTTACAGTGCACCAAGATGGCCGCCCCCGTGG  
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SEQ ID NO: 4090 ACAAATCAACCAGGTCTGAACTGATTGGTGATAAGAGCACACAGATCAGTC  
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AGGGA

SEQ ID NO: 4091 ACTGCTATCTCGCATTCTTCTCAGGTTGCCAGGAAATGTTTCTCTAACCCCTTTC  
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ATCAGTTATGAAATGTTACTTCGTTCCCTGGATCAAATTAAGAATATAAAAATTTGATCTTCTAATCT  
GNGACGANGGG

SEQ ID NO: 4092 ACAGCACTTCCGAAGAGTTTAGTTGGCCCTTTGCTGGTTGGGCTGAGTTTTTT  
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CTCCCAGAATATGGAGGCACCAAAAGTAGTTCTAGATGACAAGGATTATTTCTATTTANAAAAT  
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SEQ ID NO: 4093 ACGCGGGGTTGCTTTATTTCCATCAAAGCCCTCTGAGAAGTGAGACCTCAGC  
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SEQ ID NO: 4094 ACATTCGTGTTTCATGTTTACAANNTCTCTCATATATTTACAAATTTACGAT  
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SEQ ID NO: 4095 ACGCGGGGGTGCAGCGCGGTGGATCTGCCGCCGGGTTGCTGTGCGACTATTCT  
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SEQ ID NO: 4096 ACAGGAGTTGTTGCATATTCCATGAGGCTGGTGTGCGGAAGCAGGGACCCAC  
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SEQ ID NO: 4097 ACTTTTTTTTTTTTTTTTTTNNNTTGGGGTATAAATACTATGCTTTAATGAGC  
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SEQ ID NO: 4098 ACTTGAGGTAACAGTCATGGAGATCGAGATAACGACCATATCCCTCTTCATCT  
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SEQ ID NO: 4099 ACATGATCAGCTCTTTCTATTTTTACTCGTAAAAATTATGGAAATGAATAATT  
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SEQ ID NO: 4100 ACTGCGAGCAGTTCTTCCAATTCGATGAATATAATCCTCTGAGGAGTTAGGGT  
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SEQ ID NO: 4101 ACTGGCCTTTATGTGTCTATTATAGCAGTGGACTGGGCTGCTCGCACCAGAC  
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SEQ ID NO: 4102 ACCTATAAATGTTGTTGAGACACTGAGAACACGTGGGGCCCCCACC CGGATA  
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SEQ ID NO: 4103 ACAACAAAAAGATTAGGAAGCAAAATGTGAATAAGCTTGTATTTCAGAATATACCTATATGTGTGTGCAAAGACAATACACTCATCATATACCTCACTTAGGTTCTTTATGATGCATAATTCCTTAATCATTCATTTGTGAAACAAGAATGAATATTAAGAAACATGAAATCCAAATTGCACTTATTTTCACAATATCAATGCTAAACTCAAAATAGCAACTTCATTGACTCTCAATGGTAAATTTCAAAATGGAAGCAATCTTAATTTTTTTAACCCTTTGACTAGGGTCTGTAAAAAACGGTGGATTATTTACTGTACAGCATTCTGGAATAAAGCAAGAGTGTTCATTCACACACACAGTAGCTTCAAAACTGTTCGATCTGTTTGTTCCTATGTAGTTTTCTAAAGATGGAAAAAAGGACTTTTGGTCATCAAGACTACTGTGGCCATATTAGATTACTGGAACATCTAAGCATCAGTGTGTGACCATGCGAACAAAAGACTTCGGGGAGTGTCTATTTTTAAAAAGGTTTATGTGTGTCGAGGCAGTTGTAAAAGATTTACTGCAGAATCAAGCCCCCTTTTANGCTTAGGACCAGGTTCTAACTATCTAAAAATATTGACTGATAACAAAAAGTGGTCTTAAATGT

SEQ ID NO: 4104 ACGCGGGGTAAGAGCTTTTCGAGTATACTGTATTATCCTTGTAACCCCAAAGATGTGAGTCTTTGGGCTGCAGTAAAGGAGACTTGGACCAACACTGTGACAAAGCAGAGTTCTTCAGTTCTGAAAAATGTTAAAGTGTGTGAGTCAATTAATATGGACACAAATGACATGTGGTTAATGATGAGAAAAAGCTTACAAATACGCCTTTGATAAGTATAGAGACCAATACAACTGGTTCTTCCTTGACGCGCCACTACGTTTGCTATCATTGAAAACCTAAAGTATTTTTTGTAAAAAAGGATCCATCACAGCCTTTCTATCTAGGCCACACTATAAAATCTGGAGACCTTGAATATGTGGGTATGGAAGGAGGAATTGCTTAAAGTGTAGAATCAATGAAAAGACTTAACANCTTCTCAATATCCCAGAAAAGTGTCTTGAACAGGGGAGGGATGATTTGGAAGATATCTGAAANATAAACAGCTAGCAGTTTGCTGAAATATGCTGGAAGTTTTGCAGAAAATGCCAAAANATGCTTGATGGAAAANAATNTATTTAATACCAAATCTGTTGGGCTTCTTTNAAAAAAGCAATGACTTATNCCCCCAACCANGTTAGTAGAAAANGCTGTTGTTCAAATATGGNTN

SEQ ID NO: 4105 ACCTGGCCATCCTGGGCAGTGTGACGTTTCTGGCTGGCAATCGGATGCTGGCCCAGCAGGCAGTCAAGAGAACAGCACATTAGTTCAGAAAGAAAGATGGAAATTCTGAAAACCTGAAATGTCAAGAAAAGGAGTCAAGAACAAATTCACAGTATGAGAAGAAAAATGGAAAAAACTTTATTTAAAAAAGAAAAAGTCCAGATTGTAGTTATACTTTTGCTTGTTTTTCAGTTTCCCCAACACACAGCAGATACCTGGTGAGCTCAGATAGTCTCTTCTCTGACACTGTGTAAGAAGCTGTGAATATTCCTAATCTACCCAGATGTTGCTTTTGAAAAGTTGAAATGTGTAATGTTTGGTAATAAGAGGGTAACAAATAGTNNAAAAAAAAAAAAAAAAAAAAAAAAAAAGGTCCCTGCTATTTTAGAATCCTAGAGAACATTTCAATTGTAANAACTAGTCCATTATTTAAGTGTCCCAGTATTTTTCATTTTCAGTGGGTCCAAGATGCNAAGGTTTCCAGACACAATCTTGGTCTCTAATACTGCTCCAGGGTGGGATATCAATTCTGTCACCATGATTTGCAATGATGATAACCGTTCCCTTTAATGAAACATTTTTTCCAAATGTCCACATNTCCTGNAAACTGNGGAG

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SEQ ID NO: 4107 ACGCGGGGACGTTTCGTTTTTGTCTTTAGTCAGGAAGGACGTTGGTGTGAGGTAGCATACGTATCAAGGACAGTAACTACCATGGCTCCTGAAGTTTTGCCAAAACCTCGGATGCGTGGCCTTGCCAGGCGTCTGCNAAATCATATGGCTGTAGCATTCTGCTATCCCTGGGGGTGCGANCTTTGTATAAAAGTTTCTTGTGGCTGATCAAAAANAANAAGGCATACTCAGATTTCTACAGAAACTACAATTGTTATNGAAAAGATTTTGANNGANATNAGGAAGGCTGGTATCTTTNANANTGTAGAAGTATCTTTGGAATATAAAAGAATTNCTCCANGTTGANTAANCTAAAAATNANTAACTGANCTAGT

SEQ ID NO: 4108 ACTGGCCTGCTGCTGGCCCGCAGGCTTCTCAATAGGTTTGGCATGGACAAGAATCTATGAAGGCCAAGTGGAGGTGACTGGTGATGAATACAATGTGGAAAGCATTGATGGTCAGCCAGGTGCCTTCACCTGCTATTTGGATGCAGGCCTTGCCAGAACTACCACTGGCAATAAAGTTTTTGGTGCCCTGAAGGGAGCTGTGGATGGAGGCTTGTCTATCCCTCACAGTACATCCAAAACCATAAGGAAATATTCTGATGCCCAGATGATGAAGACTGGGGTGAATTAAGTCCACACATTTATTTCAAGTTGTTAAAGAGTTTGTGGGCCACGCAATGGTCCCTCGCATGCAAGAAGTCAAAGAGCTCCTCCGTGCAATCTCTTCTGTATGTGATCGAGAGGATACACGCTCATCACAGAGCTCTAGCCGCTCCCGGGCCTTTACACATTTCTCCAACCTGCTCGCATTGCTCTCTCACTGTTGTTAGGGGATCCACTAATTCCTCCTCTTCTCTTCTCCTCCTNAGGATCTCCGGATTCGGTAAGCATCTTTTGCTCGTCTCATCCCATGTCTTGGCTACGGTTCTAGATTCAACACGAANCAGCAACAGCGGCACCTACCCANTTCANGATCAAAAAAGGACTTGTAAGGGTC

SEQ ID NO: 4109 ACGCGGGGGCGGCCAACATGGCGGAACGCAGGAGACACAAGAAGCGGATCC  
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CAGC

SEQ ID NO: 4111 ACGCGGGGAGCCGGGTGCTGATGCGAGTCGGTGGCAGCGAGGACATTTTCTG  
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SEQ ID NO: 4112 ACCATACCACTTATAAAGTGGAAACTCTTGGACCAAGATTTGGATTAATTTGT  
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SEQ ID NO: 4115 ACTAAGAGAAAAGCACGAAGCTGTGGATCATAGTTCCCAGCATGAGGAAAA  
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SEQ ID NO: 4116 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCACAAGCACGTGCACCTTTATTGAATG  
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SEQ ID NO: 4117 ACGCGGGTATAAACTATGGAGAAAAGTCTAAAGGGTATCCCTGACCTTTA  
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SEQ ID NO: 4118 ACAAAGACAAACACCTAAAAACACACTGCGTCAAGTGCAGCACCGACTTTGGT  
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SEQ ID NO: 4120 ACTTGATATGGAAAGAAGCTTTTTTCTTCTCAAGTTGGATGCAGAACTGAGT  
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GGGTT

SEQ ID NO: 4121 ACCTATATGGCTCCCCCAATTAATCACAATTCAGCAGCATCCACTCCCCATAT  
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SEQ ID NO: 4123 ACTTTTTTTTTTTTTTTTTTTTTTTTNGACAGTGCTTTCTACTTTATTAACATCAA  
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SEQ ID NO: 4130 ACCGTGTCCCCTTCTTAGTGCTCGAATGTCCCAACCTGAAGCTGAAGAAGCC  
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SEQ ID NO: 4131 ACCAGAGCTTGAAGAACAGGATTCCACCCAGGCAACCACACAACAAGCCCA  
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SEQ ID NO: 4132 ATGNCATTGCTTCGNAGCCGGGCCCCGCCAGTNGTGGNATGGGNATTATTCT  
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SEQ ID NO: 4133 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNCNCCCTATTNATTTGAGTTTCCTG  
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AATA

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SEQ ID NO: 4143 ACGACGTGATCGTGCTGGGCACCGGCCTGACGGAATGTATCCTGTGAGGTAT  
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SEQ ID NO: 4144 ACTTATTTCAACAATCTTAGAGATGCTAGCTAGTGTGAAGCTAAAAATAGC  
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SEQ ID NO: 4145 ACTGCTACTTCTATAAACGGACAGCCGTAAGACTAGGCGATCCTCACTTCTAC  
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SEQ ID NO: 4146 ACTGTTTCTTACATGCGAATCTACAATTATCTCAAAATAAAAAAGTCTAATTTA  
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SEQ ID NO: 4147 ACTTTTTTTTTTTTTTTTTTTTTTNTCTTTTTTTTTTTTTTTAGGTCCAATGGTAGT  
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SEQ ID NO: 4148 ACCTATTGACTTACCATGGAGTTAACATCATGAATTTATTGCACATTGTTCA  
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SEQ ID NO: 4149 ACTGCCATTCTTAAATTCATTTAGATTACAGTGTGTAATCATAACTTTTGATC  
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SEQ ID NO: 4150 ACTTCTTCAGATCGCCAGGATTCAAGAAGCCATAGTTCAAGAAGAAGTTCTC  
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SEQ ID NO: 4151 ACCAGTAAATCAAAAAAGAGGGAGTATGTCCATTTAACTTTTATTGAAGTG  
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SEQ ID NO: 4152 ACCAGCGCCGGAAGTTGGTCTCGACACCTGGACTAGCCGGGTTGTATTTGGA  
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SEQ ID NO: 4153 ACCTTTTCATCTTCTCTGTGGCCAACATGAGGAACAGCAAGCTGAAGGACAT  
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SEQ ID NO: 4154 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCTTTTCTCCTCTCTCTCTCTTTGTCC  
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SEQ ID NO: 4155 ACAAATGTTTTTTATTCAAAAATACAAAATAAATTATCTGTAGGCATGGACA  
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SEQ ID NO: 4156 ACGCGGGGAGGAGGGGCTGCTGAGATATCCTGTGCCCTGGCAGTTAGCCAAG  
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SEQ ID NO: 4157 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCATCAAAAAGCTTTATTTCCATTTGGT  
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SEQ ID NO: 4158 ACGCGGGGGCCAGTAACAGGCATCGAACGGTGCAGACTGAAGACGCCCTCC  
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SEQ ID NO: 4159 ACCCTGGCCACTCCTTTCCTTTTGGCTGGCCAATGTCTCCTCTGTAGGCTCCA  
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SEQ ID NO: 4160 ACCAGTGAGGAAGGCCTTCCGGCGGAACATGGCAGTGAAGTCTCCGAGAT  
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SEQ ID NO: 4161 ACTTTTTTTTTTTTTTTTTTTTACAGGATTCCTTCAACTTTAATTGTGGGGGTAA  
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GGACGTG

SEQ ID NO: 4162 ACCACTCAATCTTTTAAAAAATGAAAAAGAAAAAAGCGGGCTCCAAAG  
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GGTGTATCCCTTCCAATATTCTTCATCCTCATCTTTGCTTCTGGAGGCATTTCTCTGGTTCACTATC  
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SEQ ID NO: 4163 ACGCGGGGGGAAAGGAGGTCTCACTGAGCACCGTCCCAGCATCCGGACAC  
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SEQ ID NO: 4164 ACGCGGGACTCCTCAGCAAATGCAAAAGAACTAAAATCATAACAGTCTCTAG  
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GCAGCCGGCTCATAAAGGTTTCATTTGGACAAAGCACAGCAGAACAAATGTGGAACACAAGGTTGAA  
ACTTTTCTGGTGTCTATAAGAAGCTCACGGCAAGGATGTTAATTTGAATTCCCAGAGTTTCAA  
TTGTAAACAAAAATGACTAAATAAAAAAGTATATATTCACACTAAAAAAAAAAAAAAAAAN

SEQ ID NO: 4165 ACTTGCAGCCCTCGGCCAAACGGCCAGACGCCGACGTCGACCAGCAGAGACT  
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SEQ ID NO: 4166 ACGCGGGGAGCTGGAGGCGGCGGAGCGGAAGCCCCACCATGGCTGCAATCC  
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NCTACATGCCCCCT

SEQ ID NO: 4167 ACTTTTTTTTTTTTTTTTTTTTTTTTGAATAAACCTGCAAGAGCTGCCTGTATTTA  
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CATCCCAAGTGATTTCCACCGTTGATGTTCCCATTCAGCANAAGTGAAATATTTTGGTTTATATG  
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SEQ ID NO: 4168 ACAGCCTTGCTTCCCCAACTCCACAGTCTCAGTGCAGAAAGATCATCTTCC  
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GAACATTCTTCTGTGTATGGATATAAACCTGTACAAGCCAGCTCGGTTTCAGGGGACTATCCATCAG  
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TATAAATTG

SEQ ID NO: 4169 ACAAAAAGACAGCCAGAGGTGTGCGGAGAGGGTGAGGTGGCCGCGTGGACG  
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SEQ ID NO: 4170 ACGCGGGGCTCTCAGAACCTTCCTGCCGTGCGGTTTGCACCTCGCTGCTCCAG  
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SEQ ID NO: 4171 ACTTGCAGCCCTCGGCCAAACGGCCAGACGCCGACGTGCAGCAGCAGAGACT  
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SEQ ID NO: 4172 ACGCGGGGGGAGTTAGGCGACCAAACCAAGTGAGAGCCCCAATCCCTGCAGTT  
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CCTACGAAATCATTTGTTTCTAAGTTGTGTTTATTCCTGGAGTGACATGCCACCCCGAATGGCTCAC  
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SEQ ID NO: 4173 ACCAACAGACGTGGATAAGTGGTTCATCACCAGAAAACTAATGAGATTTT  
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SEQ ID NO: 4174 ACGTGCAACCTTGTTGCTACGGCCACTATTCTTCATTTTGGTAGAGCCGAAC  
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CCCCAATCCTTTGTATGGCTTTTCAAGGATACCAGTGCCTTCATATTTCTTCTTAAGAAGTCTTTCA  
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SEQ ID NO: 4175 ACGCGGGGAGACGCGCGGGCGGGAAGATGGCGGCTGGGTTCAAAACCGTGG  
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SEQ ID NO: 4176 ACGCGGGGGCTGACTCTCTTTTCAGACTCAGCCCACTTGACCCCAAGTGAATT  
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ACCCGGTCATTTATAGCACACCAACTGCCGTCCATCTGCAGGACCCTCTCCATTGGGGTTCACCATT  
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SEQ ID NO: 4177 ACTAATGTGATCACAGAAAAATAGCAAACCTGAAGTCAAAAAGCACAGGCTG  
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GATCTGTTTGA

SEQ ID NO: 4178 ACTTATTTCAACAATTCTTAGAGATGCTAGCTAGTGTGAAGCTAAAAATAGC  
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SEQ ID NO: 4179 ACCTTTTTTCTGAGCTCTGGTTTGCCTTTCTTGACTGTGGCCATCACCATGTCA  
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SEQ ID NO: 4180 ACATCCCAGTGGGGACATAATCATTGCCGATTATGGTAATAAATGGGTCAGC  
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SEQ ID NO: 4181 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAGATTTTTGAAACTTTTTATTTATA  
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GATT

SEQ ID NO: 4182 ACAAATTTAATAAAGCCTTTGATCACATCTCAATCCATAAGTTAGCTACAAAA  
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CATTGTTTTCCAAAAGCCTGGGGGCTCGACCTGNGTGGGACACCAGGATGCAGCTGAAACTCTGA  
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GTTTGGCT

SEQ ID NO: 4183 ACTTTTTTTTTTTTTTTTTTTTTTTTCNAATCTGAAGTCTTGTGTTTTACTAAT  
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TAAACTG

SEQ ID NO: 4184 ACCTGGGTGTTCCCCACCTTGGGCATCATGCACCACAACAAACAGGCCACTG  
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CGGGAAGAGAAGCAGAAGCCCCAGGCTGAGCGGAAGGAGGAGAAAAAGGCGGCTGCCCTGCTC  
CTGAGGAGGAGATGGGGGTCATTAAAGGAAACTGAACATTGGATAA

SEQ ID NO: 4185 ACAAGTAACTGTTTAGAGCAAGTAAGTAGTTTGGTCCAATATTATCTTAATGT  
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ACAATAATAAGGCTATAATACAGCTATGCAGCATAAATGGTCAACACTGCTGATCCTAAAGTGA  
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SEQ ID NO: 4186 ACGTGCAGACGGTGGTAGTTCTGGAGTCTGGAAGCCACGAGGTGCTCATCC  
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GCAGGTCCCCCATTCAGGCAGCAGGTTCTGTTTAGCTCCTTACTGTGCTGTATCCCCATGGGCGG  
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SEQ ID NO: 4187 ACTTTAGGGGCTGCCATTGGGTATTCTTCTGGAAGGAATAGTTCAAGTTTAAA  
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SEQ ID NO: 4188 ACGCGGGGGGATGGTTCCATCATGGCGTCAATGCAGAAACGACTACAGAAA  
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SEQ ID NO: 4189 ACATGATCTAAATGTTTAAATGCTAAAGGTATATCGTAAGGGTAGTGTTTGT  
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SEQ ID NO: 4190 ACTTCGTCTTCTAATTTCAAAAATATAACTTAAAAATGTAAATATTCTATATG  
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SEQ ID NO: 4191 ACTTGTCTAGCTCCTCTCGGTTCTTCCGAGCCAGCTCGTCATATTGGGCCCCG  
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SEQ ID NO: 4192 TCGGCCGCCGGGCAGGTACATTTTCAAGAAGACAACAAATAAAATTACTCTCAG  
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SEQ ID NO: 4193 ACATGATCTAAATGTTTAAATGCTAAAGGTATATCGTAAGGGTAGTGTTTGT  
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CNTGG

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TNTTTANTGATGTCAACCANCTATATCTTTGAAACCTT

SEQ ID NO: 4203 ACGCGGGCACAGTCAAGCTTTAAAGAAAGTGTTTGCTGAAAATAAAGAAATC  
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SEQ ID NO: 4204 ACTACTCGTAAAGAGCTTCAAGAAGCTTTCTTCATCCATTAAAGACCTTGTCT  
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SEQ ID NO: 4205 ACTTTTTTTTTTTTTTTTTTTTGGCAGGAAATATTTATTGACAACCAGGGACA  
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SEQ ID NO: 4206 ACTTTGCCCTCAGCATCTCCCTTCATGTCTGGGTCATGAACCTTACGCTGGAAA  
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SEQ ID NO: 4207 ACATGTTTGGAATGAGTTAGATACTTGAAAAGTCTAAACACACTGATTTAG  
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GGGTAGCACCGTATGTGTGTAAATATAAAATTATATTAGACATTANCACCANTGCANAACATGCT  
CAGCNTCATAAGATCC

SEQ ID NO: 4208 ACGCGGGGCTCTTTTTCCGGCTGGAACCATGGAGGGTGTAGAAGAGAAGAAG  
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SEQ ID NO: 4209 ACGCGGGTATGCGGGCCAATATCACAGCCATCCGCAGAGTCCGGAAGACAG  
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AAAAAAATNCNGNCTCTTCAGTTTTACTAGTCTTAAAAAACTTCCAAANCTGTTCCCTTTAAAAAN  
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SEQ ID NO: 4211 ACTCAGGCTCATCATCTAACCAGCCTTCGGGTTTTGTGGCCTCTTCATCTGGA  
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SEQ ID NO: 4212 ACGCGGGGCCCTGGAGCTGTCTCTGGAAAGTAGCTGGCGAGGTTACCTTAAC  
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SEQ ID NO: 4213 ACTGGAAGGGTAGTGGAACGAGTAAAGGCCTTACCACATTGTTTACACTTAT  
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SEQ ID NO: 4214 ACGCGGGGTCAGAAGCTTGGACCGCATCCTAGCCGCCGACTCACACAAGGCA  
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SEQ ID NO: 4215 ACCTATGGGCTTCCTTGCCACTGTCCCTTCAAAGAAGGAACCTACTCACTGCC  
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SEQ ID NO: 4216 ACCGCCTATTCATTTTCTTGAACCTTCTCATAATGATAGTCATCAGTTGCCTTCT  
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SEQ ID NO: 4217 ACGCGGGACCAAACGGAAAAAAACGGAAATTATCGAATGGAATCGAAGAGAA  
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SEQ ID NO: 4218 ACGCGGGGGGAGCGGGCGGGCGGCTTGGCGGCTTGTGCAGCAATGGCCAAG  
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TCAGGAAATTCTACAAGGGCAAGAAGTCCTCNGC

SEQ ID NO: 4219 TCGAAGCCGGCCGCGGGCAGGTACGCGGGGACAGANGGAGGAAGGACAGC  
ANGGCCAACANTCACAGCAGCCCTGACCAGAGCATTCCTGGAGCTCAAGCTCCTCTACAAAGAGG  
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SEQ ID NO: 4220 ACTAAAGCATTTCATGGAGGCTCTTCAGGCTGGTGCAGACATCTCCATGATTG  
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SEQ ID NO: 4221 ACATCAAAGATTACATGAAATCAATCAAAGGGGAACTTGAAGAACAGAGAC  
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SEQ ID NO: 4222 ACTATGGTAGAAATGGCGCCATCTTCCTTTTCATGCTTAAAAACCACCACCTG  
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ACTACGACATTTGCACCAGTATCAGCAATAGCTTTGACTTGTGCATCCATGAGGTTTTCTTCTCCCT  
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SEQ ID NO: 4223 ACACAATGGTTTATTAAAGGAATGTATGGCCACATCAACCTAGCAAGGATT  
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TGCATCTTCTAGACTGCTCGAGACAGCCAGTGTAGTAGGGCCCTTATCACTCTTAGTTTGCTAGG  
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SEQ ID NO: 4224 ACGCGGGGCTCACTGAGCACCGTCCCAGCATCCGGACACCACAGCGGCCCTT  
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SEQ ID NO: 4225 ACANAATGGATTTTGAAGAGGGAGTCACCACTGGACCTCCAAGGAAGCCAC  
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SEQ ID NO: 4226 ACTGTGTGAAAAAGTGGTGTCTGTGATTACTTCTCAACTGTTCAAGCACTCAGA  
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SEQ ID NO: 4227 ACAGATTTTGAATATGGTGAAGGCAAGGGGCACTTTGGGCTAATACTCTA  
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SEQ ID NO: 4228 ACGGGGGAGGCATTGAGGCAGCCAGCGCAGGGGCTTCTGCTGAGGGGGCAG  
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SEQ ID NO: 4229 ACTTTTTTTTTTTTTTTTTTTTTTTTAAAGTTTAAATGCATTTTATTTTAGACA  
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SEQ ID NO: 4230 ACCAACAGAAATTATTTGTGAGAAGAATGAACAAATTTTGATAAAGTATGAAT  
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SEQ ID NO: 4231 ACATGGCCACAGATCATCAAACCAACATTTTTGTGAAATCATGAACAAGAT  
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SEQ ID NO: 4232 ACTGCTACCATTACATGGTTCCTTATTAAATTTGAAAAGTGCCTGAAAGTTTG  
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SEQ ID NO: 4233 ACTCCTTACTCAGGTTCTCCATATATTTCTGTAGTGTCTTATGCTTCCAGAGCA  
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SEQ ID NO: 4234 ACCCAGCATCAGGTCAAAAACCTGAATCGTTGCAGTGTGCCAGTAGATCAGG  
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SEQ ID NO: 4235 ACGCGGGGGTCTGCAGGTTGTGCTTCCGGTGCAGGAGGTGAGGACAAGATGG  
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SEQ ID NO: 4237 ACGCGGGGGTCATAGCGACTTTTGGGATAGTTTGCTATCGACAAAGGGGAGAC  
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SEQ ID NO: 4238 ACCGGGGGTTAGAGGTATATGAAAAGATGAGAAGCTCACACTGGGCTTCTTC  
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SEQ ID NO: 4239 ACGCGGGGCACAAAATACATGCAGAAGATGGTGGCAGATCTGGTGGAAAAT  
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SEQ ID NO: 4240 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCTAGGAAATATTTTTATATTAAT  
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SEQ ID NO: 4241 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCATCAAAAAGCTTTATTTCCATTG  
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SEQ ID NO: 4243 ACGCGGGGCTGTTTCAGGATCAAATACAAAATTAATATACTAGGCCGAGCGCA  
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SEQ ID NO: 4244 ACTCTCTCTGAAACAGCTACAAACATCTTGTTTTTGCAAAATATACAATGTTT  
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SEQ ID NO: 4245 ACTTATACCCCTAAATATATAAAACATTTTAAAGAAAAAAGGAAGAAA  
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SEQ ID NO: 4246 ACATAAGCATAATCAGTTATGGACAGCTTCTTGATATAAATTGCTATTCAGCAA  
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SEQ ID NO: 4247 ACCAGGGCGGCGCGTGGTCTACGCCGAGTGACAGAGACGCTCAGGCTGTGTT  
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SEQ ID NO: 4248 ACAGCCGCCACAGCTACACTCCAACCACGTCCCGCTCTCCCCAGCATTTCAC  
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SEQ ID NO: 4249 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGANATGGAGTTTCTCCTTGTAAGC  
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SEQ ID NO: 4250 ACCATATCAATGCCAACCTTTTATTATAAATGAATAACCAAAAAAATAAGTG  
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SEQ ID NO: 4251 ACCAGCTGTAACCAATACGATTCTGGGGCAGGTTGTGGGCGAGTAGAAGAAC  
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CGT

SEQ ID NO: 4252 ACGCGGGGCTTTCCGGCGGTGACGACCTACGCACACGAGAACATGCCTCTC  
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SEQ ID NO: 4253 ACTCTCCTACTTCTGGGCATGGGGTGACTTGAGGAATGTTGAAGCCATTCTGA  
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SEQ ID NO: 4254 ACTCTCCTACTTCTGGGCATGGGGTGACTTGAGGAATGTTGAAGCCATTCTGA  
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SEQ ID NO: 4255 ACGCGGGGATAAGATAAGGGACCTGTTAGATGTTTCAAAGACCAACCTTTCA  
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SEQ ID NO: 4256 ACGAATACACAGAGTGGTCTTTTCAACACTCCTCCCCCTACTCCACCGGACCT  
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SEQ ID NO: 4257 ACGCGGGGGGATCGCTGCTCCTCTCTGGGGTCTGGCGGCCGACCGAGAACG  
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SEQ ID NO: 4259 ACAGATCAGCAGAGCAGGACAGTTGGCAGCAGTGACCTCAGTAGGGAACAT  
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SEQ ID NO: 4260 ACATACCCTTTCTACTAGTGTGTTGAGTGGCACAAGCCACATTTACCATGAGAAA  
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SEQ ID NO: 4261 ACCGCCAGCTCTCTGCTCTCCACAGGGCTCCCCGCCCCACCCGGCCTGATAAA  
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SEQ ID NO: 4262 ACGCGGGGGAGGTGACTTCCTGGTCTATCCTGNTGACCCCTNCGNTTCCAC  
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SEQ ID NO: 4263 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGATTTANCTGTTCTTTATTGACATG  
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SEQ ID NO: 4264 AACTAAAGGGTGTTTCCCAAGAATAGAGGTGAAGATATTTTCATTTTGTTTA  
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SEQ ID NO: 4265 ACTTTTTTTTTTTTTTTTTTTTTTTTGANACAGGGTCTAGCTCTATGGCCAGGCT  
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SEQ ID NO: 4266 ACGTGCAACCTTGTTGCTACGGCCACTATTCTTCATTTTGGTAGAGCCGAAC  
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SEQ ID NO: 4270 ACGCGGGGTTTCAACTGACCTCTGGACGCAGAACTTCAGCCATGAAGGTAAC  
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SEQ ID NO: 4273 ATACGCGGGGAGTCACGGGGGAGCGAGGCCTGCTGGGCTTGGCAACGAGGG  
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SEQ ID NO: 4275 ACCAGCTGTGGGATTTTCGTCTTCGGATTCAATTTGTTGCTTTAACTTGGGCTTTT  
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SEQ ID NO: 4287 ACGAGCCGGTAGAGGAATCCTGTTTGATCTGGAAATTTTCCGTGGAGAGCCC  
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SEQ ID NO: 4288 ACACTGAAACATAAATCCGCAAGTCAACACACATACAACACCCGGCAGGAA  
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SEQ ID NO: 4312 ACTAAAATTGTGTTGGGAGCAGGGATTTGGAAATTTCTGAGAGATGTGTAGT  
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SEQ ID NO: 4313 ACTTAGCATCGGAACTGCAATGTTAGGAGCAGGGTTGTGTGTTGGATTTGAC  
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SEQ ID NO: 4317 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTACAGGAAATCTGCCTATTTTATTTT  
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SEQ ID NO: 4319 ACGCGGGGGGCCTTGCAAATCTCTTGCAATTGAAGGCAGGAAAAGCAACAT  
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SEQ ID NO: 4321 ACATTTCAAGTGAAATAAGTAATTCTAGATAGGACAATTTAAATTGGATAAT  
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SEQ ID NO: 4323 ACTCTCTGCAGATGGTCCAAAATTGTAATGGAGTCTGTATTAGAAGAAAATA  
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SEQ ID NO: 4324 ACCAGGTGGGGAGAAGTGTAGCAAATCTCAGTGCCAATTTGAGGGGAAGCC  
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SEQ ID NO: 4326 ACAGAGTCTTTTGCTTCTCCACCCCTAGGGGGAAAAACTGCTTTGTGCTTT  
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SEQ ID NO: 4327 ACATAAGCATAATCAGTTATGGACAGCTTCTTGTATAAATTGCTATTCAGCAA  
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- SEQ ID NO: 4331 ACGCGGGGCTTTTTTCGCAACGGGTTTGCCGCCAGAACACAGGTGTCGTGAAA  
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- SEQ ID NO: 4332 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGAAAACACANTCTTGCTCTGTTG  
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- SEQ ID NO: 4333 ACGCGGGGGATGAGGTTTTNAAGATTATGCCATTNCANAANCAGACCCNTGC  
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- SEQ ID NO: 4334 ACTTGGGTCGCTGTCTACTGCTCCTTCATCAGCTTTGCCAACTCTCGGAGCTC  
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- SEQ ID NO: 4338 ACTGAACTGGAAGGAAGAGGAAAAAAGAAAATATTACGATGCTAAAACTGA  
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- SEQ ID NO: 4339 ACTTGCAATGATGAGGACAACTCAGTTAGAAAAGTATAGTGAATGGATGGAATCT  
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SEQ ID NO: 4345 ACGCGGGGCTCACTGAGCACCGTCCCAGCATCCGGACACCACAGCGGCCCTT  
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SEQ ID NO: 4349 ACTGTTATGTGTGGGTGAGCTGACCTGGATGTAGATGTTTTCTCTCTCTTGCT  
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 CCACAGAAATGTACATTAAAGCAAAGCAGCCAGGGTCTCATCGTGTGAGACTCGAGTCTCTCAA  
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SEQ ID NO: 4350 ACCAAGTAAAAATGCAGTCATTTTGATGAAAAATGTATAACATGGTCACAT  
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SEQ ID NO: 4351 ACGCGGGGAAGGTTCAAGTGGAGCTCTCCTAACCGACGCGCTCTGTGGAG  
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SEQ ID NO: 4352 ACGCGGGGTGACTGCTCAGGAAATTTTCCAAGACAACCATGAAGATGGACCT  
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GCNGCCATTCA

SEQ ID NO: 4353 TGTATGTATCCTGTTGACTTTTCCAGAAATTTTAAAGAGTTTGAAGTTACTATT  
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SEQ ID NO: 4354 ACTTTTTTACATTTAATTTTTTTTTTAAAGACAGTTTAAAGAGCAAACGTTTTTTA  
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SEQ ID NO: 4355 ACTTAAATGAAGCATATTCATGTAATGTGCTTTTTTTTTTTTGGCCAGCTTTTC  
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SEQ ID NO: 4356 ACGCGGGGGAAACGGAAGTGAGCGGCGGGGTGCGACTGACGGTAACGGGGCA  
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SEQ ID NO: 4357 ACTGAGGATACTTGCAAAGGTCAACTACGGGACACAAAAACGATTGTTTA  
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SEQ ID NO: 4358 ACCGGCCAAGCCTGGTCCCCTTCTTGTGGGCACTGTGTATGGGCGGAGAAA  
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SEQ ID NO: 4359 ACCAGCAGCTGCAGGATGCTTCCATGCAGTGTGTGTTGACCTTGAGGGCCTG  
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SEQ ID NO: 4360 ACTGTTGTCCATTTTCATGAGAGTAGGCTTGAGGACACCATGGGCAAGGATCT  
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SEQ ID NO: 4361 ACTACCAGATAGAAATTCTGAAATTGGAAATTGGAGGCCAAAGCCTTAATCT  
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SEQ ID NO: 4362 ACGCGGATTGTTGCAAGATGGCCGCGCCAGTGATGGATTCAAGCCTCGTG  
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SEQ ID NO: 4363 ACCCCTTTATGGCTCTTCCAGGTTACATGAGAACTGGTGATCTCGGTGGGGT  
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SEQ ID NO: 4371 ACATCTCTGGCACAGATGCTATTGGTCCTTAATGTCCTGTGATTTTAGGAAAT  
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SEQ ID NO: 4372 ACCCTCAGAAAACCGACGACCACCAATAGCATCTATTTTCATCCATAAAAAATG  
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SEQ ID NO: 4373 ACTTTGAGCAGGATAATAACATAAAATTTTCAATTTAAAAAGTTGTATTTATAGCC  
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SEQ ID NO: 4374 ACAGCTTTGTAGTATTTTAAATCTATCCAGGATCTTTTACTGCCCAAATTAC  
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SEQ ID NO: 4375 ACTTGAAGTGGAGGGCAAGAAGTGGAGAGTGGAAAATCAGGAAAATGTTTC  
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SEQ ID NO: 4376 ACTTTTTTTTTTTTTTTGGAGGGTATTTTTATTTGTGGGTCAA AAAAATCTGT  
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SEQ ID NO: 4377 ACCACATCCTGCTATGACTCCCGGGCCTGGGTATCCAGGTCCCATTGAGTGG  
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SEQ ID NO: 4378 ACACTTTGAGACGCAGGAAGCAGCTGAAAGAGCTATTGAAAAATGAATGG  
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SEQ ID NO: 4379 ACAGTTTAAACAACAGCTGAAAGAATAAAGAAGCAATGTGGTCTTCAAGCT  
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SEQ ID NO: 4380 ACTACCAGATAGAAATTCTGAAATTGGAAATTGGAGGCCAAAGCCTTAATCT  
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SEQ ID NO: 4381 ACCATATAATCCAACCTATCATGGTAAGGCCAGAAATCTTCTAACCTACCAGA  
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SEQ ID NO: 4382 ACTGGGAGTCAGAACGTCTGGGTTCTAGTCTTGACTGCCATTAAGTACGAG  
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SEQ ID NO: 4383 ACGCGGGGCTGCTCCGCTTGAGGAGAAGCGCCAAGTGC GCATGGGGACGCT  
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SEQ ID NO: 4384 ACTAGGTGCTGCAATGCAAAGGGTTATGACAAAAGTGTCTGTAAATGTAGGA  
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SEQ ID NO: 4385 ACACAAGCTTTGAGGAAGTGCNAAGGACTGACCTCTAGGCCAGAACAAAGAT  
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SEQ ID NO: 4386 ACGCGGGGCTGTTTTTTGTGNTTTTNCGAGCTCAGCTGTTTCGTCCGGGTTTT  
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SEQ ID NO: 4387 ACTCGGGCAAGCCATGATCTTTTNCCTACTCGCAAAACAGCTANTTGGCTG  
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SEQ ID NO: 4388 ACATTTGTTAAAATTGGTGAGCCNNTATTGATACATTATTAAGTCCATAGTTT  
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SEQ ID NO: 4389 CGTACCTCTATAATTTGGGTGACCANTATGCACTGAAGATGAGGTTTGTGGAC  
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SEQ ID NO: 4390 ACTTTTCTCAGTGACCTCTGGAATAAAAGAACTGACTTTTGATAGTTTTAAAA  
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SEQ ID NO: 4391 ANNCTTAAGCGGCCGCCNTNCAGGTACGCGGGGGCGCTTCTAGGGCTNITTT  
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SEQ ID NO: 4392 ACATCAATAACCGGGGATTTTTATTTTTTTGCTATACTATTTTCAACAACCAG  
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SEQ ID NO: 4393 ACCCCCAAGATATCAGGCCAGANTNTTTTGAGTCAGTTGCTGTGCNGCNTTAC  
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SEQ ID NO: 4394 ACCAAGGCTTGTTTTGCAGANGGAGAAGCACTTCCATTATCTGAAAAGAGGC  
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SEQ ID NO: 4395 ACCATTCCAGAGAAAACACAAACCTTCCCAAATTAAGGAGGGCAGAATAATT  
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SEQ ID NO: 4396 ACAATTGAAAATTCACCTGCTGNAGCAAACATGGACAGGGCTCTGGACGATGA  
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SEQ ID NO: 4398 ACGTGATACAGCGAGGTGCTCAGTCCCCTCTGATCTTTCTCTATGTGGTTGAC  
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SEQ ID NO: 4399 ACTGTGTGCAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTAC  
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SEQ ID NO: 4400 ACCGCCAGCTCTCTGCTCTCCACAGGGCTCCCCGCCCAACCCGGCCTGATAAA  
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SEQ ID NO: 4401 ACGCGGGGAGGATAGGCCGAAGCTNGACCCGGAGGAGATGAAACGGAAGGT  
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SEQ ID NO: 4402 ACTGCTACCATTACATGGTTCCTTATTAATTTGAAAAGTGCCTGAAAGTTTG  
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GACGTTGGCTCCCTGCATGACTGCAAGCTGAGCANCATTGGGAGGGCATCCAGGAGGTGGAGGAG  
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SEQ ID NO: 4403 ACGCGGGTATCAAGAATTGGTTTGTTCATTAAAGCAGGCAGTAGATATGAGG  
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SEQ ID NO: 4404 ATTGTTGTCCATTTTCATGAGATTNTGCTTGAGGACACCATGGGCAANGATCTG  
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CCANAGGAACGGATGAANCCTGCTTGAAGCATGCTGGGATGGCCATTTGGAAGGAGTGTGCAA  
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SEQ ID NO: 4405 ACAGTTTTATGTGGGGAACAATTCATGCAGGCTACTGGAAAATTAATCTTAT  
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SEQ ID NO: 4406 ACGCGGGGAGGCTTGAGGGAAGCATGGAGGTCCATGGCAAGCCCAAGGCTA  
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SEQ ID NO: 4407 ACTTTTTTTTTTTTTTTTTTTTTTTTTTAAAGGATGAGAAGAGATTTTAGTTATTC  
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- SEQ ID NO: 4408 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTAATGACATCCTAAAATTCANAGGAG  
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- SEQ ID NO: 4409 ACGCGGGGGTATTGGGTTTGNCTGGCCTCGATTNAAAGAGACAGAACTGTC  
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- SEQ ID NO: 4410 ACCGCCAGCTCTCTGCTCTCCACAGGGCTCCCCGCCCCACCCGGCCTGATAAA  
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- SEQ ID NO: 4411 ACCAATCCTTTTGACGCTATTCCATTAAGATAGAGAAAGAGAATCCTCCCTAA  
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- SEQ ID NO: 4412 ACTGTGTGCAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTAC  
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- SEQ ID NO: 4413 ACCGCTCCAGGCCAGCTGTGTNNANATCTGAGCCTTGACAGCAGCGGTGCC  
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- SEQ ID NO: 4414 GGTACTCAACACCAACATCGATGGGCGGCGGAAAATAGCCTTTGCCATCACT  
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- SEQ ID NO: 4415 GGTACTCTTGATGAAAGACCGTGAAACCAACAAATCAAGAGGATTTGCTTNT  
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TGGAAAAGCCATCAAGGTGGANCAAGCNTCCANACCATTGTTGAAAGTGATNACGTGGACCG  
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ANCCNGNGGANTTTTNTCTNCTGNNANGTCTCTTTGTAATTACCTTTTCTATNTTTATNTTTTAN  
NNTTNTNTATTTTNTNTNTGGATTTACTTTCTNTTTNATAGTNTGTCTCNTTTATTNTTTATATGINT

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SEQ ID NO: 4416 GCGTGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTGGAGCAGAA  
 GGAACCTCTTTATTGGAAAGTGGATGANAGAGGCNCCTCCAGCCGTGGGCATCCTGAATGGGAGGA  
 AGAATGGACAGTGTGGGAAGGGGAAGGGCANCAGGGACTTAGGACCAGATGGGGCCTGTAGCTC  
 TGNGGACGGCACAGGTTCATNANGGACCGGCTCCNTNTCNNTGGGGAACNAATCNGGCCATCCCN  
 CTAGANCCTTCNCANNANTTCTTGATTCCCTGNNCAGTTTANTNTTTTTTTCATTCATTNNTTAGGGN  
 NATTCANCCCTTNGCTTCANCTGNTTNNNTGTTNATGTTGCNATTGANCAAGGNTTNTGNNCATCT  
 GNACCTTTTATCTTNGCNCNTTTTTCTNACTNTTTNTTTNNCTTTTCNNCTTNNCTTTTTNTNTAT  
 TTGNATNTNTTTNTANTNNTTCTTTNTTNTTANTTNTTTTTTTTTCTCNTTGTTTTTTATGTATNTC  
 TCNTTATNTNTNCTTTATNTANTNGTTATNATTTTNCNTCTTTTANTTAATNTTCCTTATNTGTT  
 TTGTANCTTTTATTTNTCNTTCTATTTATCTGNATNTTNTANTANNNTANTTTATNTNNNNNTNTAN  
 NAN

SEQ ID NO: 4417 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNNAAAAATNAAATTTT  
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 GGAANATTTNTNGCCATAAANAANATCTNGCTGATTNGNAAAAGNGAAANANCAGTTTATGTTNT  
 TCAGGGNAAANAAAAANGACNTAGTAAANGATNGTTTAAATTTTAAANCCAAACATAANCATAN  
 GGCTTCNTTATNAACANCCNGTNTAGCCCATTNCTAAATNTTTCCNTTATCAATTANCCCCCCTTT  
 ATAAANAGGCATTCTNAATATTGGTTNGGCCANCNGGANTCCCNAAAAAATTACCCCCGTTGAA  
 AAATTTACGCCAACCTTTTGCACAAAAAAACNNGGNGGGGACCACCTTTATGGGATAGGGGT  
 TTGGACNACCCTTTATACCCAAAANNTNGGTTTNNAAAAATTTTACCNAATTNGGGAA

SEQ ID NO: 4418 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCTTTTTTTTTTTTTTTTTTTT  
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 CTTTATAGGGCTGCTTCCNCCTGAAGGAANATCCTTTTGNAANCCCTGCCTTTCCNCCTGTAGGCTGG  
 CAAAGGANANNGGANCACCCAACNCNNAAACTACCGTTTGGGCATGGNTAAAAACNNGGGGGA  
 TTTTANANCATCCTGGGCTTTTACATCCATGAANTAGGAATTGGGGCTNTGCACCANGCGTTTCT  
 TTTTGGGNTNCCNCTTCNCCNCTTNTGGAGAGGGATGAAGGAAATCCTTTGCGANAAGNATTTTN  
 CNNGNCCNAGGNNCACCCCCGAAAAGGCCCNNTTCTTGCCCGNGGGCCNTTTAAANGGG  
 GAAATTCCACCCCTNGGGGGCGGTTNTAANGGATCCAACCNGGNNCCAANTTNGGGTNAN

SEQ ID NO: 4419 GCGTGGNCNCGGCCGACGTNCGCNGGTAAGATAGTTAANCCTGCNTAANN  
 AACTNCCAATNTACATACTCNGCTTAAATTTGGGGGAAAATTTAGAAATNTNATTGACAGGATT  
 ATNGGAAANTTGGTATAATGAATGAAACATTTTGNNATATAAGATTCATATNNACTTCTTATACNT  
 TTGATAAAGNNAGGCNTGGTTGTGGTTAATCTGGNTTATTTTGNCCACNNGTTAANTNTNTCNT  
 ATNACTNGNNNNANCCCTCATGACTTANGAAAANANNGGAAANANCTTTGTGACCTAAAGACGAT  
 GCCATGCTNNNTAAAAGNAANAGNNGNCAAGGCTCNANATTTGAAAAACGTNTTCCNNAATTTNT  
 TTNCNCNTTTNGATGNATCNAACTNGTCGTTTNGTCATNGGNNNATNTNGAATGAAACCGTTTNN  
 AAACNTNTCCTATNGANTTNNCTTTCTCNTANAGTTTNTAGNGNNNTNTNNNCTNGTTAAATGNT  
 TTTATNTTTGTTNGTNTANNGNTCCCTTTTCTNCTANCNNAGCNGTGNNGTC

SEQ ID NO: 4420 ACTT  
 TTTTTTTTTTTAGGGTTTCATTATTTATTTATGACAAANNTCCNCATNTGGGATTNTNTCCANTCA  
 AAANTTNTTTGAAANNANGCCNTNGGCCTTGCCCAATCGGANAATGGAATCATTTGACTNACCCA  
 TNCTACNAANGNCCCCCAAATNGCNTAAGTTTTAACTGGNCNTTAAACCTGCCTGNGACCTTNT  
 NAACCTCGGCCNCGTTNATTTGGAAGGANGCCTGGNCCTTGGCNCCTATNANGCNANTGGTTNCN  
 GANATTTCCNNGGGACGTNCCTTGGNCNGNANACCCNAAGGGNNAATTCAGCNCACCTNGNGG  
 NCCGNTACTNATGGANNCCAACCTCGGNCCCCAACTTTNGNGGNANCAAGGGGNANAANNNGTT  
 CCCNGGNNGNAAANTNGTTTCCCTCACAATTTCCCAANATANCAACCCGGNANCTTNAAGGG  
 TAAACCCNNGGGGGGCC

SEQ ID NO: 4421 NCCAGCGGCCGNCNCGNCGGNCCTTTTTTTTTTTTTTTTTTTTTTGGTTGGNN  
 CNNTATNGNNNACATNNCTACTGNGCATACNCATATATACNNTGTATTTNAAAAANNGNCTNTAC  
 AATATGNACNTTGATCACTNGGNTNACCAACGTAATATATTGNGAACATTGTGCTGTCTACAACA  
 GTTAAAGAATTGAATNCTTGGAGGAAACACANTNTANTAAACNATCTTGTGTGGGGACATTGAG  
 GCATAATTTNTTTTCTAAGGAGGCTTAATNTTTNAACAANGNCTTTGGGAAAAAAGGGGNGTT  
 CTNGTCTTATATNGCTTNTATANANGATGGAAACNTGCCCTTCCATTTAGCCTTTTACTNGCTTC  
 TNTACCACGACCTAATCACCAATCAAGTTACCCATTTTGGTTTAAACCNCTCTCTATTTGGCTT  
 CCGNTTCTACCCAATNTTCTTGGGGAAACNCCNAAGGGGNCCTTCATTCCTTGGNACTTTNGGTT

CCTACCCTTAAAGAAGGNACCTTTCCTTTTAAANAA

SEQ ID NO: 4422 GGTACTNTCNTNTTCTNCTTTTTTTNNTTTTTGNNTTTTNNAACTTNNCACTTT  
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ANCTCTTTNATTNTGAAACCAAANCTGGATTCTGGACNCTTGCATTGATTGCTAAAGCAAGTTTT  
TGATTGGTANCATAACCTGGGTAAGGTTACNNGAGTGAAGGTATTGANGAAGATNCNCAATTGAT  
CTTCTGTGAATTTGGTGCAANTGCACCTATGATTTGNTGCNACCATCTTGTGGGAAGAGGGGGC  
NNACTATGCAAAAAAGAGAGTTCTNGAAGGCCTGAACACTGNCNCGGAGACTGCTTACACCTCA  
TTTTTTAAAAAAGAAAGGTCACATNTTATACAATATAAAAAATNCACAAAGCTNAAGCTTA

SEQ ID NO: 4423 ACAGGAGAGAATCAATAAGGAGATAGTTAATTCACCACTACAGCTTTGTGCA  
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TCAATGACTTTTCTACTTCTTATAGGCATTTTATGCNTTTNTTCCCACTGNAATGNTTTTTNANANGA  
TCNAACNCCNACCNAGATGCNGCAAACCAAATCATNCNAACTGAAAGATGAATGNTATTAGTGAA  
TNACATTGGNTNTTTAATGNNGNATTGGTTCAAACAAAAACATNNAATNCNTCATATTNAACTGAA  
ANTTTGNCNAGGCGCNNTGACTNCCCCCTNTGATNCCACACTTTTTGGNGGGCGAGGNNNGCNGA  
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AAAAAATT

SEQ ID NO: 4424 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTATTAATATTTGGGNCTTACAAATGA  
TCACTTTTAAATGGACTTTTCTGTAANAATGTAAAACTCAAAAATTTGCCAAGNNTNTATNTGATC  
CNCNCAAATCCCCAAAAAGGGTTTNTGGGTNGTCTTNATTAACGCAAATNTTTGGGAANGTTTCAC  
TNTTACTGNAGGATCTTGAATATGTTTTACAATAANGAANCTNCAAAGTTTTTATGCNNGGGC  
ATTGNNAACTATAAATAACATTTGTATTAAAAAGAACTGGGNAATACAAAAATNGNGANACTCT  
GNGGGCNGCAATTGNGANGCCAGAATATTTNTTTGCTTTGGGAGCNGGTGCATCCTTCAAAAGC  
ACCCNCNATGNGGNNTGNAATCATCTGGCTGGNACCCNNTATTTAAANTGGTGTCCGAAAAC  
GNNATTTCAAACTTTTTTGTATTACCGAAGTTTGTNAACTTTTGTGNGGTNACAATGCGGA  
GNNGCTTTNAAAAATGGTTTGNANCTGCACCCTTAANTTTGGGCT

SEQ ID NO: 4425 ACGCGGGGTATTGAACTGGGGGTGGTCTGGCCTACTGGGCTGACATTA  
ACAATTATGGGAAATGCAAAAGTTGTTTGGATATGGTAAGTGTGTGGTTCTCTTTTGGAAATTTT  
TCAGGTGATTNAATAATAATTAATAAACTACTATAGAAAACGCAANCAAAGGGAATTTCTTCTG  
ANGGGAACCTTTTGATTTATNAANTAATAATCCTNTTTTAAAGTTGNNGNAANCCAAGTTTTTTTAA  
GTGGAAGAAAAAACCTTTCCATTTGTAACTGNAAAACAAAAAGNTAAGGGATTCCTCAAAAT  
TTTGNAANTNTTATTTTAAACTTATCTGTTNAAANTTGGNANCGGTTAAANAATTTGGGATA  
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TNTAACTTTTTTAAANAANNATTTTTAANNANTACCNACCCNGNAANTTTATTGCCNTNAAGCNA  
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TTTAANCATAA

SEQ ID NO: 4426 ACACAAGCTTTGAGGAAGTGCAAAGGACTGACCTCTAGGCCAGAACAAGAT  
GGAAAACCTACCAGGCCCATCAGGCCTATAACCCAGACACCAGCATGGACAAAACCTCAGTTNTACT  
GAATTCANAGACAAAATTCAGTGACACTCTTNTACCANTTTTTANGGNTTTTACANCATTTGACTG  
ANCAAACCTANTTTTTNGTCTTGGTGTANNAACCTTTANTNAAANGGNTATTANTTAATTNANTA  
CTTTGATTNAATTTTNTNTNCTNATTTNTTATTTATTTNCNANCTTTNANTGGCTT

SEQ ID NO: 4427 ACTTCCAGCCACTAATTGAGATGTAGTTATGAAAGATTAGAATTGCCTTAA  
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AAATTAACCTTCCCTGNCAAAAAATNTGCACAACCTTATCAAAAACTTCATNAACANATTTAAAG  
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TNNACTGGNACCTNNNCNGGCGGGCCCTTTAAANGGNCAATTNCACCCCTGGGGGGCGGTTT  
TTGGGANTCCAGCTCGGGNCCACNTGGGGGNATNTNNGGNATATACNGGTTCCCGTGGGAAAT  
GNTGTTT

SEQ ID NO: 4428 ACAAGTCATTTTAGGAACTAATAGAAATAGGAATGTGGGAAGGCCAGGTGGT  
TCTGTAGAATTTTGAACAAGGCTTTTCCAAGAACTCCTCCNTCCGCCCCCATCCTCCATATGGAN  
AGTTGGTGANCTGAAGTGGATTGACAGNTGANTCCTTCTNTTTCAGGGNTTTANCCGCCAGTCTT

NNCTCNTGTNCAANATTTTNTCCAGGGTCCGGATTCATCANATCACCTCANATTTGGNTCACCTNN  
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 TGGNTAACTAAGNANACTTTTAANGGGGGCTTTTAAATGAGTGGNNNAATTTTAAACCTGGAAAA  
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 NTANTTTTAANGGGGGGTNTTTTINTAGTAAAAAGTCTTCNTCNTCNTAAAAATNCTAAAAAANCCT  
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 NGNCCNC

SEQ ID NO: 4429 ACTCTGGATGCCAGCACCAAGATCTATGCTGTGCGCGTGGATGCCGNCCATG  
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 CATGTTGCTGATGGAAGNGCTACTGAAATGGNAAACAACCAAAAANGGNTGTAAANCCAAAGAAG  
 ANGNACTTACACAGACCTATTGAGCAGAACATAAACCAACCTCAATGCTCCAANGCANATCGGAAT  
 TGTGAGATTGTCCTTGTTCATAAGACANNAGCNTCATTTGATGANTNCACTACAGCANGGGTGT  
 CATGTCNCTTCTNCNCTGCCATANCNTACATAAGTNAACTGTTGTTCCNCTNAGGNNCAAACCTN  
 TNTCCAAGGGNGAAACCTNTAGGGTTGCAACAGTAAGGNTGGNNANAANGTTNNCNATTTNAAAT  
 NGCCTTTGGCCCCNNTTTNGCAAGANTANCNNAAAATNTTGCCTTTACTTGGANGGGGTAAAAAC  
 CTANCAGGA

SEQ ID NO: 4430 CGTGCCCNACGATTNCNCNGCTTTGAAAGTGAAACTATGGNTACCAAACAN  
 CTATTNTNATTATAGCATNTACAGTGTCTGGAAAANGATNTAACAATAANTAAGTGGACGCAT  
 CACNAGACATCCATTTACTTAATCACAGAAAGTGGATCNTGCTACATANNTTCTGAANGTCTNCAT  
 TCTACAAATTCTCCAGGCTNACGAATGTATCAANCTNNAAAATNATTCTANCNATNTNTGTNGNA  
 AGAGATATCTTGCGNGCTTTT

SEQ ID NO: 4431 ACTTTTTTTTTTTTTTTTTTTTTTGTNTNTAACCCTGAANCANTTGATTCCAGT  
 TCACGAGCGCTCTCGGTAGCTCAGGAAAGCGACATAGTCTCTANCACTTAGCCCTCTCCTACAATG  
 CAAAGCAAAAAAGACTGTGGCTCCAGGACTCTCTGTGGGCGGAATCGGCNCTAAGGAGTTGGNGC  
 AATTATTTTGTGCAAGGNANGAAGCCNAAAAGCCTGCATGCAACAAANTGGNATGAATAAATTT  
 NTGTTTCCCCCTCTTNTNNAANAANGNAGCTGGTAATGGCAAANANTTCTTCAGNNNAACTT  
 TTTAAANAGCNGNCAAAAAACNAANAANCCNGACAGNGAAACANGNCCTTTTCCCNATAANNAAG  
 TTTTNTNGTGNANNTTAAAAACCCCNCTCCTTNCNGGGCGGNCCGTTAAAANGGNCAAATTCCT  
 AACANCTTGCCGGCCTT

SEQ ID NO: 4432 GNCTCGNCGCCTTTNNNGTCTCNCACCAANCCCATNGNNGCNCNGTAACTCT  
 AACACANTTCCTTAAGGAATNAGCATGGGTTTCGTAGGAAGCAAAACNNAGCTCTCCATAGAGAAAC  
 CACTTTCACAGGATGATTAGGTGGACCTGCAATGAANANAATACATTTCAAAGATGGGTTCTGA  
 CTTACACCAAGTTTCACTGATNTACTTAAANAAAAANCGACCCTTCTCTGTATCAAAAGAATTAN  
 AAAAAATTCATNACGGATAAAATANATCTCAGGAAAAGGTCCAAGTCTCTCANAGACATACATT  
 TGCTAATTAATNAATTTAAAGTTTGACAACAAAATTNCTATTGGGANCTACCTTANAATAGGCC  
 ATNCTNAGTTCNTGNTTCTNNTTACNTGCNTTNCNTNGANATGAATNCNNNNNTCTNCTATAANN  
 ATTTNTCTTNTNTNATNATNCAACATNGGTTGTTCTCTTA

SEQ ID NO: 4433 ACGCGGGGGCGTCTTGTTCTTGCTGGTGTGCGGTGGTTAGTTTCTGCGACTTG  
 TGTGGGACTGCTGATAGGAAGATGTCTTCAGGAAATGCTAAAATTGGGCACCCTGCCCCCAACT  
 NAAAGCCACAGCTTGTTTTGCCAGATGGTCAGTTTAAAGATATCANCTGTCTGACTACAAAGGA  
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 TTGATAGGGGCANAAAAATTTNANAACTCAANTGCCANNTGATGGTNCCTTCTTGGAATCTT  
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 ATTCCTTTNGTNTCAAAACCCNAACCCNCCATTNGNTNAAGATTTTGGGNTNTTAAAAGGCTGAT  
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 NTTAAAATNACCNNCCCTNNTGGGCCNTTTTNTGNATTAACCTTTNAAAACCTATTNTAAGGCN  
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 AACC

SEQ ID NO: 4434 ACGCGGGGGCTGCGCGCCGCTAGGTGTCTGGGCGATCTATGGGCAAGAGCA  
 AGGGCCACNATNACAGATTACGGCGAGGAGCANCTCAACGAGCTGGAGGCCCTGGAGTCCATCT  
 ACCCTGACTCCTTCACAGAATTATCANAAAAATCCACCCAGCTTCACCATTACTGTNACGTCTGAGG  
 CTGGAAAAAATGATGAAACTGTCCAGACTACCCTNAAGTTTANATACAGTGANAAATCCAGATG  
 AAACCTCCNTTTATGAAATATTCTCCNANNAAAAATNTTAAAAANATANTGATGTCTNATGACNTTA  
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NATTATAANNTGAATCTNNAAANTTTANTTANANTTTATTACNTTTTTNATCTAATAANNAACATN  
 ANAANTATNNATAAAANTAATAATNGNAGNANTTATTNANATNANCTANATNANTANCANTNAA  
 ATNNNTANTAGTNAAANANTNNNTGAAATGTGAATTCAGATGTAATTNGGTTATTATTTNTTAA  
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SEQ ID NO: 4435 ACGCGGGGGCAGTCAGCGAGCCACGTGCTTGTGTTGACTGGACAACTTCCT  
 GGTGGAACCGCGACTCTTGCAAGTGGGCAAACCTTGACNTTTTCNCTATGGGCAAACGCGGGAG  
 CCGGAGCCANAGCCANCTACTCAACACCTCTAANTAAAAAGCANAAAAACATNTTTCGATATT  
 CGGTNAGGAGCATNCCCTANTATAANANNGGTTTINATAATNGGATNNTTATCNATNAGATTNGTN  
 NCCTNNAAAAATANTNTNNANCATCTNNAAANTANAACATCTGCTTATAANNTTCAACNTAACT  
 TATTNNNGGTTATNNATNANAACCTACTTATNNTATTATCTNNTATTAGATTNATACTAAAT

SEQ ID NO: 4436 ACCGCCGGGTTGAAAAAGAAACAAAGGAATACTTTGAGAGTTGGGGAGAAA  
 GTGGAGAAAAAATGTGTTTGAAGCTCTTCTGAGCTCATAATTTTAACAGCTAGCCATTGTTTGC  
 ATGGAAAGGAAATCAGAAGTCNACTCANTGAAAAGGTACCACAGCTGTATGCATATTGGATGGA  
 GGTTTCACCCATCCAGCCTGTCTCTTACCNGTGGCTGCCTTTCCTAGTTNCAANCGCATGGNCAN  
 ACCTNCTCNGCANNANCCCNNGTCTTTCCCTNANGCCANCCCCGNNCCTCCCCNGCCTNCCNANNT  
 CTTNGTNGACATTCTCCTNCTGTNCTTNTTGCTCNTTAATGGGATTGCCNCCCCCTTNACTCTTGNN  
 TNTCCTCNGNCCGTTNNNTCTNGATNCNCCNCTGGCCGCCNCCNNTTCTNNACTNCTNACCCTNN  
 CNCTNCTNTCCNTTTNCCCCNNTCNCCTNCCCTCTCCNACCTCCTTNCCTCNCNCCNCTCNCCTCG  
 CCANGACCCTACTNTTCTCCTCTT

SEQ ID NO: 4437 ACTTTTTTTTTTTTTTTTTTTTTCAGNGNAAAATAACTTTTATTGAAACCCNACC  
 AANTGCAAAATCTGTTCCCTGGCATTAAGCTCCTTNTTCTTTGCAATNCNGTCTTTCTTAATGGTCC  
 CATNAATGCTTTCTTNTCCTCNATGGTNTGNAANCGGNNATGGNCAAACCTTGNANGTGNTGTCAAT  
 AAACNTAAAGGTAAATTTTNAANANACC

SEQ ID NO: 4438 ACCCTNCAGANNATNGTGNTNTTTACNCCATTTTCTACAACCTCTGGATTGCTT  
 GATACCTTTATAGGANAANGCAAANATTATATTTTTGTGTCTAACATATATAATCTGGGTGCCACA  
 GTNGATCTGTATATTCTTAATCATCTAATNAACCCACCCAATTTGAAAACNCTNTTAATTTGTCATN  
 GAANTCACAAATANAACACNTCATATGTAAANGGCTGGACACTCACTCAATATNAANGCAAACNTN  
 ATACTNGTTNAAANTTGCTNAAGTNCCAAAATGCACATTTAAANCNATTTTCAAATTCNNGTTNCA  
 AANTTCAAAAAATTTTAATACANACAANCNANTTGATTNTTTTTNNACATNTAAAAAACTTCAA

SEQ ID NO: 4439 ACANGNGGAACAATCNGGTNTTTTTAATCAAAGAAGGNGGTGTTCAAGTTGCT  
 GCTCACAATANTTGATACCCACNATTTGGAAATGCATTGGATAATATTAATTGNTGGCANCTGT  
 TATCAACTACATTGATAGTAAATTTGAGGACTACCTAAATGCAAAATCANCANTNAACANACTTC  
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 CATTNNGAATATTGATTTATTGAANNNGTTGNATAAAAAANTGANTATCATTCANTTNTTNNCNA  
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 AGAACATTATATTANAATTATTNCNAAATTTCCNANAANCNGTATTAATAATCATNATTNACANCT  
 CNTANAAAAATAACGGNCCCNNTNACTNTATNCNTGGAGNANGCNANTTAATGTTATCTTCTAA  
 AATAANTG

SEQ ID NO: 4440 ACCATAGCCAAATCTGGGACAAGCGAGTGTTTAAACAAAATGACTGAAGCAC  
 AGGAAGATGGCCAGTCAACTTCTGAATTGATTGNCCAGTTGGTGTGCGGTTTCTATTCCGCCTTCT  
 TGTAGCAGATAAGGTTATTGTCACTTCAAAACACAACAACGATACCCAGCACATCTGGGAGTCTG  
 ACTCCAATGAATTTTCTGTAATTGCTGACCCAAGAGGAAACACTCTAGGACGGGGAACGACAATT  
 ACCCTTGTCTTAAAGAAGAAGCATCTGATTACCTTGAATTGGATACAATTAAAAATCTCGTCAAA  
 AAATATTCACAGTTCATAAACTTTCCTATTTATGTATGGAGCACAAGACTGAAACTGGTTGAGGGA  
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 NNNNNNNNNNNNNNNNNNNNGTCTTGGNCNNNACNCNCTTANGGNGAANTCNNCCNCTGGG  
 GGGNCGTNTTNTTGNANCCANTTNGNCCCANNTNGGNNNT

SEQ ID NO: 4441 GGTACTGGATCCAGGTGAGGTTGTGGGCTGNGNCCCGAAGGTGCTTGGCTCC  
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 TTGAGCAAATCTCTACTTGACATGGTCCCTGATGTCCACACTGAGGGCTGCTCCCTTGGCTTTTCATGT  
 GAGCAATGTTATCATGTTGATCCGCAAAACAAGGGAATGCCACCATAAGGGATCCCATGGTANAT  
 CGCCTCATAAATGCCCATTTGGTTCCCCATGAAGTTATAAAAANGGTTGGTTTGGGATGACCAANAA  
 GGNCATTCTGGGGTAACCCCCCGGTACCTNNCCNGGCGNCGNTNAAANGGGCNAATTCACNC  
 NCTNGNNGGCCGTNANNANNGGNCCNANCTNGNCCNANCTTGGNNNAATNATGGNNTAANN



NNNNCCTNNNNAAAAATTNNTTNCNTTNNANNNNNCCNNNANNNNNCC

SEQ ID NO: 4442 GGTACGCGGGGAGGAGATCGCCATTATCCCCAGCAAAAAGCTCCGCAACAA  
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TCAAGCTGCAGGAGGAGGAGAGAGAAAAGGAGAGACAATTATGTTCCCTGAGGTCTCAGCCTTGGAT  
CAGGAGATTATTGAAGTAGATCCTGACACTAAGGAAATGCTGAAGCTTTTGGACTTCGGCAGTCT  
GTCCAACCTTCAGGTCACTCAGCCTACAGTTGGGATGAATTTCAAAACGCCTCGGGGACCTGTTTG  
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NNATTTACNCCNTNNNTNGCCTNNNNCNCNCNCCTATTTNTAANNNTNNANNTNNNNNNNNNNNN  
NNTTTNCCGGTNGGNCNTTCNAAAGGGGGGAATNNNNNNCCTCCCCCGNCCCTTTTTAAAGGGG  
TTTTTCCCNCTTNGGGGGNNNNNTNTAAAAANCCNCCTGGNCAAANTTTTGTNCCNTNN

SEQ ID NO: 4443 ACCTATTAGTAGTCACCGCCTTTTCCCTTCCCTCCAGCCCCTAACAACCACTA  
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TCCTTTTATACACAAATGTTTCATAGCAGCATTACTCATAAAAGCCCCAAAGCGAAACACCTCAAGT  
GTCCATCAACCGATGAATGGATAAACAATGTAATATATCCACACAATAGAATCTTATTCGTCA  
ATAAAAGGAATGAAGTACTTTTTTTTTTTTTTTTTTTGGGATTTTTTAGGTAGNGGGTGTGAGCT  
TGAACGCTTTCTTAATTGGGGGCTGCTTTTANGCCTACTATGGGTGGTAAAT

SEQ ID NO: 4444 GGTACGAGTGNTAGTGATGAGTTTGCTAATACAATGCCNGTCAGGCCACCT  
ACGGTGAAAAGAATGATGAATCCTAGGGCTCANAGCAGTGCAGNAGATCATTNNATATCGCTNCC  
GTGNAGTGTGGNGAGCCAGCTAANTACTTTGACGCCGTTGGGGATAGCGATGATTATGGTNGCGG  
AGGTGAAATATGCTCGTGTGTCTACGTCTATTCCTCTGTNAATATATGGNGTCTCACACNATANA  
ACCTATGAAGCCAATTGATNTCATAGCTCAGACCATTCTATGTATCCAAATGGTTCTTTTTTTCC  
GGANTNTAATGTTACAATATGGGGANATTATCCGNAAGCCTGGTAGGGATNAGAANTNTAACTT  
TCANGGNGACCNAAAAATCNTAATNNGTGTCTGGTTAAAGAATGGGGGTCTNCTNCCNCNGNCGG  
GGTCTANNAAGGGGGTCTGNAGNGGTTGCNGCNTGTTGTANTANTNTNATTCCNCCATCTTN  
CACTGGNGAAAANNTTGNATAATTCTGGNCTCTCNCNNTATNGACCGGCNCAACCNATANGGTN  
TTTNGTTTGGGNNTTGGCNGGGGGTTTTATTTTAAATTTTGGGGGNNAANTNTGCG

SEQ ID NO: 4445 ACNCGGGTGCAAGAGTCTCGCTCAGCNNNAAATANGNTNGCTTTCTTTTAAAT  
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TTAATTTTCACTCTTNATGTTCAATTANCAGTTCAAATTAAGAAGATGGTTATTGGAGAACTTTTT  
TGAATGGTTTTGTATTAATTTGCTTTGAAATAGATTTTCTTGTGCACACAGCCAAGATTTCTT  
CAATGGGNCGTGAGCTAGTTGAGGGNTAACCTTGTANGTTGCANAGTGCATTNGCTTGNTTGNNTG  
ATCTTCTGTGTATGAGGTGAGTCTGTATNTTGAAGGAGGATATTCACTGAAGCTCATAGTTTA  
TAAACAAGGAAATCACTGATAANAATGGGAATNNGTNCTGNGTTCTGGGAAAAACNTAAANAGA  
GCNACTGATTTAGCCAGCCTTTGCCACTACCCCTATAATTAANTGCCAGTCTTATGTTATANAAG  
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SEQ ID NO: 4446 ACAAATGTTTTTTATTCAAAAATACAAAATAAATTATCTGTAGGCATGGACA  
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TNGGGCTTCTGNCACAGNNCANTNCTAGTAGGGCCAGCTGNATTANNGAANTNNGGNAANNCN  
CGGGGAGNNTANNNCCTCCCATTNACCCATTGCACCCATTCCAGGGNCCTTCTCTCTTTAGGAA  
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SEQ ID NO: 4447 ACTTTGGGAGAATCGTGGTGTCTGGATGGCCTGATCAATGTATTAAAAATCA  
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NTTT

SEQ ID NO: 4448 ACCTACTGGTAGTTGGGTTCAAGGAAATGGGATTGACTTGGCCTTCAGGCTCC  
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ACCC

SEQ ID NO: 4449 ACGCGGGTGCACACTTTGGGAAGCATCACCATGAAGGTGAGGGACAGAGCTC  
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SEQ ID NO: 4450 GCGTNGNCCCCNGCCGTTTTNCTGGCNGAGCTGAGGCTCNAATTCNNNAGG  
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SEQ ID NO: 4451 ACTTTTTTTTTTTTTTTTTTTTTTTTTTTTATTAGGGCAAGTGCATGTTCTGTA  
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SEQ ID NO: 4452 GGTACAATGCCTATCGCTTCTTAATCCAAAACGTTCTGNGGCTCCAGANGGA  
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GNGNNCGCNATANAAT

SEQ ID NO: 4453 ACNGCGGGGCTCACTGAGCACCGTCCCAGCATCCGGACACCACAGCGGNCCT  
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ACCTNTTCTTGAACCTGGTGTCTGTGGGCTTAATANCNIITNGCCTACTCCGGGAANNCTTANG  
GACAGGAAGATGGTTGGCGANTTGACCGGNGCCCANNNCTATCNIITATCCGNAATGTGCCTTGA  
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SEQ ID NO: 4454 GCGTGGCCGCGGNCGATGTNANCACAGGCTACATGTAGGCAAGCTAAAGCT  
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SEQ ID NO: 4455 ATNTNCCATGAAATATCCATGAACATACTTATANGTNAAGTATTATTTATTG  
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TATTAGTCAAATTTANCTTGGAAAATCCNGNANCTTTTTTCTGTTNAANATCGGCTACCCTAAGNT  
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SEQ ID NO: 4456 ACGCGGGGGAGGGCGGTGGCTCAGGCTCCTGGAAAGGACCGTCCACCCCTCC  
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SEQ ID NO: 4457 GGTACTTINAATTG  
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SEQ ID NO: 4458 GCGNGGGCNGGGCCGANGNNCACNGGCTGCTNCCNNNGTNTTATNNNNGT  
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CTGGAACCTTGAGATTGAAAAATATGGGTGCTCNTNTNAATGNNNATACTTNCANANAGCAGACTGN

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 GCGCNTGGACAGGACAATTTTGNNGCCACNGNTAAAATTCAAATTTTTTAGTCTTNACGGANTTT  
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SEQ ID NO: 4459 GGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTAGGGCCAGGTTTATTCCTCACAT  
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SEQ ID NO: 4460 GGTANTTTNGGGAGCTACAGATAGTAAAGATGATGATGACATTGACCTCTTT  
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SEQ ID NO: 4461 NCNAGCGGCCGCNCNGNCGGGNACGCGGGGCTCTTCTGCNCTACATNATGG  
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 NNGGCTNNGGTACGNACNTTTCAGCNTCTCAAAACANGAACTCACGACACGCTGGATNGNGGCC  
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SEQ ID NO: 4462 GGTACTTGCATGTAGGACAACCTCAGTTAGAAAAGTATAGTGAATGGATGGAA  
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 TGCCNTTTTGCTNTTANCNTTTAAATNNCTTCTACANCTTTTNTTNTNNTNATAATTTATATC  
 TTTATNTTCGNNNNCTTTTTATTNGTCTTNTTTTNTTNTTNGATTTCTATNTTTCATACNTNTACN  
 NTTTTTANTTATGNATCTCNTTCTCTATCATAATANCTTCCATNTATGGANTCCTTNTCCTTNTCTA  
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SEQ ID NO: 4463 ACANAGTNTTTTCAACAACCTGAATTTTAAGTTTCTTTCTNCAATGTCTGCCCT  
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 ANATCCTGAACCTATGAAGACTTCTTTTNGGAAAGAATATCATTTATGANAAGTGTGNAANAGTN  
 GCTNCCTCCGTGGTNTAAATCACTATCTAGCNATATNACCNTATNGATCTCCTCCACCACCAANT  
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NCTCTNNAANGATAAATTGNCATTTGCTTCCAAAAAATCTN

SEQ ID NO: 4464 ACCACCCTGAGTTCTGTCCAGGCCTATCAAGCCCTCCCACCATACTTTGGC  
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GT

SEQ ID NO: 4465 GTACGCGGGGGATTNCCNATGCGGGGAANANGTGGTTTTGACANAATGCCTC  
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GGACCACCTTCCCCTCCTCCCGGACGAGGCGGCGGGGTGGTANCAGAACTCGGANTCTTNCNT  
TCCTCCTNCACNACCACCTATAGGGGGAGACCTCATNNCCTTNTGACATAACAGGGAGACCTGNA  
AACCNNNNCAACTGCNTGGTTTGGTTTC

SEQ ID NO: 4466 ACNAGAAAAGGGTCCGAGCACAAGCCAAGAAGTTTGCGCCCTCATAAGCAG  
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SEQ ID NO: 4467 GGTACTTTTTTTTTTTTTTTTTTTTTTAAATCATCACANGCNCGTGCACTTTATT  
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TTATATNTAAANANNNGGNTTGNACAATGGGCTCANNACNTNANTGNGTNTGGTCCCGGNATGGT  
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SEQ ID NO: 4468 ANATTTGGCCCTGGTTGATTTCTCTTCTGAATAGTTTCCATCCCNATGAAGAG  
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SEQ ID NO: 4469 GGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTTCGACCGC  
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TGAAATNTTCTTNTAGATNGGATAANCANTTTCAGCTATGTATTTAAGATTATCTNCNNNAATTCT  
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TNTNTCATGAGGNTTGCTNTTTNAATNNTCANACANCTCNCCCTTG

SEQ ID NO: 4470 GTACGAGATGGCAGCCCTCCAGAGCCNNTTCTATGGAGATNAGATGAATCTT  
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NAAGTNACCANAACCTNGTCAGCATGTNCATNTGCCNTGACCCCCACCANATACCTGANATCNNAT  
ACGTGCACCAGGTGGCCAAGCAGATNCACATATNGATGTCCAGCACCTGAGCATGNATGCACCNG  
TCCTTATCAAANNCANGCACCACTTTGCCTTACTTGAGTCGTCTCTNTTCAAGTGGCCACCTGGTA  
GCCTANAAACAGATAANACCCAGGGGNTCAGNANGTTCCCCAAANGCTGCNCAACCTTACANCANAT  
GCTTNAGGCATANNNAACGTANGGAGGGGCGCTGGCCACAATGTGNACTGATGGNTAGATTNCA  
AANTTCCTTTNTTTATACTGTGTGNAGCANNTCTAAANTTGGTCAANTAANGCAAGGGGNGGTCA  
ACNCAGC

Figure 3.

SEQ ID NO: 4471

MASRSMRLLLLSCLAKTGVLDIIMRPSCAPGWFYHKSNCYGYFRKLRNWSDAELEC  
 QSYGNGAHLASILSLKEASTIAEYISGYQRSQPIWIGLHDPQKRQQWQWIDGAMYLYRS  
 WSGKSMGGNKHCAEMSSNNNFLTWSSNECNKRQHFLCKYRP

SEQ ID NO: 4473

MEKIPVSAFLLLVALSYTLARDTTVKPGAKKDTKDSRPKLPQTLSRGWGDQLIWTQTYE  
 EALYKSKTSNKPLMIIHHLDECPHSQALKKVFAENKEIQKLAEQFVLLNLVYETTDKHL  
 PDGQYVPRIMFVDPSTVRADITGRYSNRLYAYEPADTALLLDNMKKALKLLKTEL

SEQ ID NO: 4475

MRAWIFFLLCLAGRALAAPQQEALPDETEVVEETVAEVTEVSVGANPVQVEVGEFDDG  
 AEETEEVVAENPCQNHCKHGKVCELDENNTPMCVCQDPTSCPAPIGEFEKVCSNDN  
 KTFDSSCHFFATKCTLEGTKKGHKLHLDYIGPCKYIPCLDSELTFFPLMRDWLKNVL  
 VTLYERDEDNNLLTEKQKLRVKKIHENEKRL EAGDHPVELLARDFEKNYNMYIFPVHW  
 QFGQLDQHPIDGYLSHTELAPLRAPLIPMEHCTTRFFETCDLDNDKYIALDEWAGCFGIK  
 QKDIDKDLVI

SEQ ID NO: 4477

MEKLVQLKESFGGSSEIVDQLEVEIRNMTLLVEKLETLDKNNVLAIRREIVALKTKLKE  
 CEASKDQNTPTVVHPPPTPGSCGHGGVNVISKPSVVQLNWRGFSYLYGAWGRDYSPQHP  
 NKGLYWVAPLNTDGRLLLEYIYLNTLDDLLLYINARELRITYGQGSCTAVYNNNMVYN  
 MYNTGNIRVNLTTNTIAVTQTLNAAAYNNRFSYANVAWQAY

SEQ ID NO: 4479

MTERRVPFSLLRGPSWDPFRDWYPHSRLFDQAFGLPRLPEEWSQWLGGSSWPGYVRPL  
 PPAAIESPAAVAPAYSRAISRQLSSGVSEIRHTADRWRVSLDVNHFADELTVKTKDGV  
 VEITGKHEERQDEHGYISRCFTRKYTLPPGVDPTQVSSSLSPGTLTVEAPMPKLATQSN  
 EITIPVTFESRAQLGGPEAAKSDETAAK

SEQ ID NO: 4481

MSSTSPNLQKAIDLASKAAQEDKAGNYEEALQLYQHAVQYFLHVVKYEAQGDKAKQS  
 IRAKCTEYLDRAEKLKEYLKNKEKKAQKPVKEGQPSPADEKGNDSDGEGESDDPEKRR  
 LQNQLQGAIVDRPNVKWSDVAGLEGAKEALKEAVILPIKFPHLFTGKRTPWRGILLFGP  
 PGTGKSYLAKAVATEANNSTFFSISSDLVSKWLGESEKLVKNLFLQALARENKPSIIFIDEID  
 SLCGRSENESEAARRIKTEFLVQMVGVDNDGILVLGATNIPWVVLDSAIRRRFEKRIY  
 IPLPEPHARAAMFKLHLGTTQNSLTEADFRELGRKTDGYSGADIGIIVRDALMQPVRKV  
 QSATHFKKVRGPSRADPNHLVDDLLTPCSPGDPGAIENTWMDVPGDKLLEPVVSMDSM  
 LRSLSNTKPTVNEHDLLKLKFTEDFGQEG

SEQ ID NO: 4483

MHKEEHEVAVLGAPPSTILPRSTVINIHSETSPDHVVWSLFNTLFLNWCCLGFI AFAYS  
 VKSRDRKMVGDTVGAQAYASTAKCLNIWALILGILMTIGFILLVFGSVTVYHIMLQIIQ  
 EKRGY



SEQ ID NO: 4485

MRTIAILAAILLVALQAQAESLQERADEATTQKQSGEDNQDLAISFAGNGLSALRTSGSQ  
ARATCYCRTGRCATRESLSGVCEISGRLYRLCCR

SEQ ID NO: 4487

MPAPEQASLVEEGQPQTRQEAASTGPGMEPETTATTILASVKEQELQFQRLTRELEVER  
QIVASQLERCRLGAESPSIASTSSTEKSFPWRSTDVPNTGVSKPRVSDAVQPNNYLIRTEP  
EQGTLYSPEQTSLHESEGLGNSRSSTQMNSYSDSGYQEAGSFHNSQNVSKADNRQQHS  
FIGSTNNHVVRNSRAEGQTLVQPSVANRAMRRVSSVPSRAQSPSYVISTGVSPSRGSLRT  
SLGSGFGSPSVTDPRPLNPSAYSSTTLPAARAASPYSPQRPASPTAIRRIGSVTSRQTSNPNG  
PTPQYQTTARVGSPLTLTDAQTRVASPSQGQVGSSSPKRSGMTAVPQHLGPSLQRTVHD  
MEQFGQQQYDIYERMVPPRPDSLTLGRSSYASQHSQLGQDLRSAVSPDLHITPIYEGRTY  
YSPVYRSPNHGTVELQGSQTALYRTGVSGIGNLQRTSSQRSTLTYQRNNYALNTTATYA  
EPYRPIQYRVQECNYNRLQHAVPADDTTRSPSIDSIQKDPREFAWRDPELPEVIHMLEH  
QFPSVQANAAAYLQHLCFGDNKVKMEVCRLGGIKHLVDLLDHRVLEVQKNACGALRN  
LVFGKSTDENKIAMKNVGGIPALLRLLRKSIDAEVRELVTGVLWNLSSCDAVKMTIIRD  
ALSTLTNTVIVPHSGWNNSSFDDDHKIKFQTSVLNRNTTGCLRNLTSAGEEARKQMRSC  
EGLVDSLlyVIHTCVNTSDYDSKTVENCVCTLRNLSYRLELEVQPQARLLGLNELDDLLG  
KESPSKDSEPCSWGKKKKKKKRTPQEDQWDGVGPIGLSKSPKGVEMLWHPSVVKPYL  
TLAESSNPATLEGSAGSLQNLASNWKFAAYIRGGRPKRKGLPILVELLRMDNDRVVS  
SGATALRNMALDVRNKEGKYAMRDLVNRLPGGNGPSVLSDETMAAICCALHEVTSK  
NMENAKALADSGGIEKLVNITKGRGDRSSLKVVKAAAQVLNTLWQYRDLRSIYKKDG  
WNQNHFITPVSTLERDRFKSHPSLSTTNQQMSPIIQSVGSTSSSPALLGIRDPRSEYDRTQP  
PMQYYNSQGDATHKGLYPGSSKPSPIYISSYSSPAREQNRRQLHQQLYYSQDDSNRKNF  
DAYRLYLQSPHSYEDPYFDDR VHFPASTDYSTQYGLKSTTNYVDFYSTKRPSYRAEQYP  
GSPDSWVYDQDAQQRNSFFLTLFRLR

SEQ ID NO: 4489

MSGIALSRLAQERKAWRKDHFPFGFVAVPTKNPDGTMNLMNWECAIPGKKGTPWEGGL  
FKLRMLFKDDYPSSPPKCKFEPLFHPNVYPSGTVCLSILEEDKDWRPAITIKQILLGIQEL  
LNEPNIQDPAQAEAYTIYCQNRVEYEKRVRAQAKKFAPS

SEQ ID NO: 4491

MCDRKAVIKNADMSEEMQQDSVECATQALEKYNIEKDIAAHIKKEFDKKYNPTWHCIV  
GRNFGSYVTHETKHFIYFYLQVAILLFKSG

SEQ ID NO: 4493

MENFQKVEKIGEGTYGVVYKARNKLTGEVVALKKIRXDTETEGVPSTAIREISLLKELN  
HPNIVKLLDVIHTENKLYLVFEFLHQDLKKFMDASALTGIPLPLIKSYLFQLLQGLAFCHS  
HRVLHRDLKPQNLLINTEGAIKLADFGLARAFGVVVRTYTHEVVTLWYRAPEILLGCKY  
YSTAVDIWSLGCIFAEMVTRRALFPGDSEIDQLFRIFRTLGTPEVVWPGVTSMPDYKPS  
FPKWARQDFSKVVPPLDEDGRSLLSQMLHYDPNKRISAKAALAHPPFQDVTKPVPHLRL

Figure 2.

SEQ ID NO: 4472

AAGATATAAAAGCTCCAGAAACGTTGACTGGGACCACTGGAGACACTGAAGAAGGC  
AGGGGCCCTTAGAGTCTTGGTTGCCAAACAGATTTGCAGATCAAGGAGAACCAGG  
AGTTTCAAAGAAGCGCTAGTAAGGTCTCTGAGATCCTTGCCTAGCTACATCCTCAG  
GGTAGGAGGAAGATGGCTTCCAGAAGCATGCGGCTGCTCCTATTGCTGAGCTGCCT  
GGCCAAAACAGGAGTCTTGGGTGATATCATCATGAGACCCAGCTGTGCTCCTGGAT  
GGTTTTACCACAAGTCCAATTGCTATGGTTACTTCAGGAAGCTGAGGAAGTGGTCTG  
ATGCCGAGCTCGAGTGTGAGTCTTACGGAAACGGAGCCCACCTGGCATCTATCCTGA  
GTTTAAAGGAAGCCAGCACCATAGCAGAGTACATAAGTGGCTATCAGAGAAGCCAG  
CCGATATGGATTGGCCTGCACGACCCACAGAAGAGGCAGCAGTGGCAGTGGATTGA  
TGGGGCCATGTATCTGTACAGATCCTGGTCTGGCAAGTCCATGGGTGGGAACAAGC  
ACTGTGCTGAGATGAGCTCCAATAACAACCTTTTTAACTTGGAGCAGCAACGAATGCA  
ACAAGCGCCAACACTTCCTGTGCAAGTACCGACCATAGAGCAAGAATCAAGATTCT  
GCTAACTCCTGCACAGCCCCGTCTCTTCTCTGCTAGCCTGGCTAAATCTGCTCA  
TTATTTTCAAGAGGGGAAACCTAGCAAATAAGAGTGATAAGGGCCCTACTACACTGG  
CTTTTTTAGGCTTAGAGACAGAACTTTAGCATTGGCCCAGTAGTGGCTTCTAGCTC  
TAAATGTTTGCCCCGCCATCCCTTTCCACAGTATCCTTCTTCCCTCCTCCCCTGTCTCT  
GGCTGTCTCGAGCAGTCTAGAAGAGTGCATCTCCAGCCTATGAAACAGCTGGGTCTT  
TGGCCATAAGAAGTAAAGATTTGAAGACAGAAGGAAGAACTCAGGAGTAAGCTTC  
TAGACCCCTTCAGCTTCTACACCCTTCTGCCCTCTCTCCATTGCCTGCACCCCAACCC  
AGCCACTCAACTCCTGCTTGTTTTTCTTTGGCCATAGGAAGGTTTACCAGTAGAATC  
CTTGCTAGGTTGATGTGGGCCATACATTCCTTTAATAAACCATTTGTGTACATAAGAA  
AAAAAAA

SEQ ID NO: 4474

ACCGCATCCTAGCCGCCGACTCACACAAGGCAGGTGGGTGAGGAAATCCAGAGTTG  
CCATGGAGAAAATTCCAGTGTGAGCATTCTTGCTCCTTGTGGCCCTCTCCTACACTCT  
GGCCAGAGATACCACAGTCAAACCTGGAGCCAAAAAGGACACAAAGGACTCTCGA  
CCCAAACCTGCCCCAGACCCTCTCCAGAGGTTGGGGTGACCAACTCATCTGGACTCAG  
ACATATGAAGAAGCTCTATATAAATCCAAGACAAGCAACAACCCCTTGATGATTAT  
TCATCACTTGGATGAGTGCCACACAGTCAAGCTTTAAAGAAAGTGTTTGCTGAAAA  
TAAAGAAATCCAGAAATTGGCAGAGCAGTTTGTCTCCTCAATCTGGTTTATGAAAC  
AACTGACAAACACCTTTCTCCTGATGGCCAGTATGTCCCCAGGATTATGTTTGTGA  
CCCATCTCTGACAGTTAGAGCCGATATCACTGGAAGATATTCAAATCGTCTCTATGC  
TTACGAACCTGCAGATACAGCTCTGTTGCTTGACAACATGAAGAAAGCTCTCAAGTT  
GCTGAAGACTGAATTGTAAAGAAAAAAATCTCCAAGCCCTTCTGTCTGTCAGGCCT  
TGAGACTTGAAACCAGAAGAAGTGTGAGAAGACTGGCTAGTGTGGAAGCATAGTGA  
ACACACTGATTAGGTTATGGTTTAATGTTACAACAACCTATTTTTTAAGAAAAACATG  
TTTTAGAAATTTGGTTTCAAGTGTACATGTGTGAAAACAATATTGTATACTACCATA  
GTGAGCCATGATTTTCTAAAAAAAATAAATGTTTTGGGGGTGTTCTGTTTTCTCC  
AACTTGGTCTTTTACAGTGGTTCGTTTACCAAATAGGATTAAACACACACAAAATGC  
TCAAGGAAGGGACAAGACAAAACCAAACCTAGTTCAAATGATGAAGACCAAAGAC  
CAAGTTATCATCTCACCACACCACAGGTTCTCACTAGATGACTGTAAGTAGACACGA  
GCTTAATCAACAGAAGTATCAAGCCATGTGCTTTAGCATAAAAAAA

A

SEQ ID NO: 4476

CGGGAGAGCGCGCTCTGCCTGCCGCTGCCTGCCTGCCACTGAGGGTTCCCAGCACC  
ATGAGGGCCTGGATCTTCTTTCTCCTTTGCCTGGCCGGGAGGGCCTTGGCAGCCCCT  
CAGCAAGAAGCCCTGCCTGATGAGACAGAGGTGGTGGGAAGAACTGTGGCAGAGG  
TGA CTGAGGTATCTGTGGGAGCTAATCCTGTCCAGGTGGAAGTAGGAGAATTTGAT  
GATGGTGCAGAGGAAACCGAAGAGGAGGTGGTGGCGGAAAATCCCTGCCAGAACC  
ACCACTGCAAACACGGCAAGGTGTGCGAGCTGGATGAGAACAACACCCCCATGTGC  
GTGTGCCAGGACCCACCAGCTGCCAGCCCCATTGGCGAGTTTGAGAAGGTGTG  
CAGCAATGACAACAAGACCTTCGACTCTTCTGCCACTTCTTTGCCACAAAGTGCAC  
CCTGGAGGGCACCAAGAAGGGCCACAAGCTCCACCTGGACTACATCGGGCCTTGCA  
AATACATCCCCCCTTGCTGGACTCTGAGCTGACCGAATTCCCCCTGCGCATGCGGG  
ACTGGCTCAAGAACGTCTGGTCACCCTGTATGAGAGGGATGAGGACAACAACCTT  
CTGACTGAGAAGCAGAAGCTGCGGGTGAAGAAGATCCATGAGAATGAGAAGCGCC  
TGGAGGCAGGAGACCACCCCGTGGAGCTGCTGGCCCCGGGACTTCGAGAAGA ACTAT  
AACATGTACATCTTCCCTGTACACTGGCAGTTCGGCCAGCTGGACCAGCACCCCAT  
GACGGGTACCTCTCCACACCGAGCTGGCTCCACTGCGTGCTCCCTCATCCCCATG  
GAGCATTGCACCACCCGCTTTTTCGAGACCTGTGACCTGGACAATGACAAGTACATC  
GCCCTGGATGAGTGGGCCGGCTGCTTCGGCATCAAGCAGAAGGATATCGACAAGGA  
TCTTGTGATCTAAATCCACTCCTTCCACAGTACCGGATTCTCTCTTTAACCCCTCCCCT  
TCGTGTTTCCCCCAATGTTTAAATGTTTGGATGGTTTGTGTTCTGCCTGGAGACAA  
GGTGCTAACATAGATTTAAGTGAATACATTAACGGTGCTAAAAATGAAAATTCTAA  
CCCAAGACATGACATTCTTAGCTGTA ACTTA ACTATTAAGGCCTTTTCCACACGCAT  
TAATAGTCCCATTTTTCTCTTGCCATTTGTAGCTTTGCCCATTTGTCTTATTGGCACATG  
GGTGGACACGGATCTGCTGGGCTCTGCCTTAAACACACATTGCAGCTTCAACTTTTC  
TCITTAGTGTTCTGTTTGAACTAATACTTACCGAGTCAGACTTTGTGTTTCATTTTCAT  
TTCAGGGTCTTGGCTGCCTGTGGGCTTCCCCAGGTGGCCTGGAGGTGGGCAAAGGG  
AAGTAACAGACACACGATGTTGTCAAGGATGGTTTTGGGACTAGAGGCTCAGTGGT  
GGGAGAGATCCCTGCAGAATCCACCAACCAGAACGTGGTTTGCCTGAGGCTGTAAC  
TGAGAGAAAGATTCTGGGGCTGTCTTATGAAAATATAGACATTCTCACATAAGCCCA  
GTTTCATCACCATTTCTCCTTTACCTTTTCAAGTGCAGTTTCTTTTTCACATTAGGCTGTTG  
GTTCAA ACTTTTGGGAGCACGGACTGTCAGTTCTCTGGGAAGTGGTCAGCGCATCCT  
GCAGGGCTTCTCCTCCTCTGTCTTTTGGAGAACCAGGGCTCTTCTCAGGGGCTCTAG  
GGACTGCCAGGCTGTTTTCAGCCAGGAAGGCCAAAATCAAGAGTGAGATGTAGAAAG  
TTGTAAAATAGAAAAAGTGGAGTTGGTGAATCGGTTGTTCTTTCTCACATTTGGAT  
GATTGTCATAAGGTTTTTAGCATGTTCTCCTTTTCTTACCCTCCCCTTTGTTCTTCT  
ATTAATCAAGAGAACTTCAAAGTTAATGGGATGGTTCGGATCTCACAGGCTGAGAA  
CTCGTTACCTCCAAGCATTTTCATGAAAAAGCTGCTTCTTATTAATCATACAACTCT  
CACCATGATGTGAAGAGTTTCACAAATCTTTCAAAATAAAAAGTAATGACTTAGAA  
ACTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

SEQ ID NO: 4478

CGGCCTCTCATTTCTCCTAGCCCTTCTGTTCTTCTCCTTGGCCAAGCTGCAGGGGATTTG  
GGGGATGTGGGACCTCCAATTCCCAGCCCCGGCTTCAGCTCTTTCCCAGGTGTTGAC  
TCCAGCTCCAGCTTTCAGCTCCAGCTCCAGGTTCGGGCTCCAGCTCCAGCCGCAGCTTA  
GGCAGCGGAGGTTCTGTGTCCCAGTTGTTTTCCAATTTACCGGGCTCCGTGGATGAC  
CGTGGGACCTGCCAGTGCTCTGTTTCCCTGCCAGACACCACCTTTCCCGTGGACAGA  
GTGGAACGCTTGAATTCACAGCTCATGTTCTTTCTCAGAAGTTTGAGAAAGAACTT  
TCCAAAGTGAGGGAATATGTCCAATTAATTAGTTTGTATGAAAAGAACTGTTAAAC  
CTAACTGTCCGAATTGACATCATGGGAGAAGGATACATTTCTTACACTGAACTGGAC  
TTCGAGCTGATAAGGTAGAAAGTGAAGGAGATGGAAAAACTGGTCATACAGCTGAAG  
GAGAGTTTTGGTGGAAAGCTCAGAAATTGTTGACCAGCTGGAGGTGGAGATAAGAAA

TATGACTCTCTTGGTAGAGAAGCTTGAGACACTAGACAAAAACAATGTCCTTGCCAT  
TCGCCGAGAAATCGTGGCTCTGAAGACCAAGCTGAAAGAGTGTGAGGCCTCTAAAG  
ATCAAAACACCCCTGTCGTCCACCCTCCTCCCCTCCAGGGAGCTGTGGTTCATGGTG  
GTGTGGTGAACATCAGCAAACCGTCTGTGGTTCAGCTCAACTGGAGAGGGTTTTCTT  
ATCTATATGGTGCTTGGGGTAGGGATTACTCTCCCAGCATCCAAACAAAGGACTGT  
ATTGGGTGGCGCCATTGAATACAGATGGGAGACTGTTGGAGTATTATATACTGTACA  
ACACACTGGATGATTTGCTATTGTATATAAATGCTCGAGAGTTGCGGATCACCTATG  
GCCAAGGTAGTGGTACAGCAGTTTACAACAACAACATGTACGTCAACATGTACAAC  
ACCGGGAATATTGCCAGAGTTAACCTGACCACCAACACGATTGCTGTGACTCAAAC  
CTCCCTAATGCTGCCTATAATAACCGCTTTTCATATGCTAATGTTGCTTGGCAAGCAT  
ATTGACTTTGCTGTGGATGAGAATGGATTGTGGGTATTTTATTCAACTGAAGCCAGC  
ACTGGTTAACATGGTGATTAGTAACTCAATGACACCACACTTCAGGTGCTAAACAC  
TTGGTATACCAAGCAGTATAAACCCTGCTTCTAACGCCTTCATGGTATGTGGGGT  
TCTGTATGCCACCCGTACTATGAACACCAGAACAGAAGAGATTTTTTACTATTATGA  
CACAAACACAGGGAAAGAGGGCAAACCTAGACATTGTAATGCATAAGATGCAGGAA  
AAAGTGCAGAGCATTAACTATAACCCTTTTGACCAGAACTTTATGTCTATAACGAT  
GGTTACCTTCTGAATTATGATCTTTCTGTCTTGCAGAAGCCCCAGTAAGCTGTTTAGG  
AGTTAGGGTGAAAGAGAAAATGTTTGTGAAAAAATAGTCTTCTCCACTTACTTAGA  
TATCTGCAGATATCTAAGTAAGTGGAGAAGACTATTTTTTCAACAAACATTTTCTCTT  
TCACCCTAACTCCTAAACAGCTTACTGGGGCTTCTGCAAGACAGAAAGATCATAATT  
CAGAAGGTAACCATCGTTATAGACATAAAGTTTCTGGTCAAAAGGGTTATAGTTAAT  
GCTCTGCACTTTTTCTGCATCTTATGCATTACAATGTCTAGTTTGCCCTCTTTCCCTG  
TGTTTGTGTCATAATAGTAAAAAATCTCTTCTGTTTGGCGTATAGGGATTCTTTGTAC  
AGGAAATATTGCCCAATGACTAGTCCTCATCCATGTAGCACCCTAATTCTTCCATG  
CCTGGAAGAAACCTGGGGACTTAGTTAGGTAGATTAATATCTGGAGCTCCTCGAGG  
GACCAAATCTCCAACCTTTTTTTTCCCCTCACTAGCACCTGGAATGATGCTTTGTATGT  
GGCAGATAAGTAAATTTGGCATGCTTATATATTCTACATCTGTAAAGTGCTGAGTTT  
TATGGAGAGAGGCCTTTTTATGCATTAAATTGTACATGGCAAATAAATCCCAGAAGG  
ATCTGTAGATGAGGCACCTGCTTTTTCTTTCTCTCATTGTCCACCTTACTAAAAGTC  
AGTAGAATCTTCTACCTCATAACTTCCTTCCAAAGGCAGCTCAGAAGATTAGAACCA  
GACTTACTAACCAATTCCACCCCCCACCACCCCTTCTACTGCCTACTTTAAAAAA  
ATTAATAGTTTTCTATGGAACCTGATCTAAGATTAGAAAAATTAATTTTCTTTAATTTT  
ATTATGAACCTTTTATTTACATGACTCTAAGACTATAAGAAAATCTGATGGCAGTGAC  
AAAGTGCTAGCATTTATTGTTATCTAATAAAGACCTTGGAGCATATGTGCAACTTAT  
GAGTGTATCAGTTGTTGCATGTAATTTTTGCCTTTGTTTAAGCCTGGAACCTTGTAAGA  
AAATGAAAATTTAATTTTTTTTTTCTAGGACGAGCTATAGAAAAGCTATTGAGAGTAT  
CTAGTTAATCAGTGCAGTAGTTGGAACCTTGCTGGTGTATGTGATGTGCTTCTGTG  
CTTTTGAATGACTTTATCATCTAGTCTTTGTCTATTTTTCTTTGATGTTCAAGTCCTA  
GTCTATAGGATTGGCAGTTTAAATGCTTTACTCCCCCTTTTAAATAAATGATTAAA  
ATGTGCTTCGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

SEQ ID NO: 4480

CTCAAACACCGCCTGCTAAAAATACCCGACTGGAGGAGCATAAAAGCGCAGCCGAG  
CCCAGCGCCCCGCACTTTTCTGAGCAGACGTCCAGAGCAGAGTCAGCCAGCATGAC  
CGAGCGCCGCGTCCCCTTCTCGCTCCTGCGGGGCCCCAGCTGGGACCCCTTCCGCGA  
CTGGTACCCGCATAGCCGCCTCTTCGACCAGGCCTTCGGGCTGCCCCGGCTGCCGGA  
GGAGTGGTCGCAGTGGTTAGGCGGCAGCAGCTGGCCAGGCTACGTGCGCCCCCTGC  
CCCCCGCCGCCATCGAGAGCCCCGCAGTGGCCGCGCCCGCCTACAGCCGCGCGCTC  
AGCCGGCAACTCAGCAGCGGGGTCTCGGAGATCCGGCACACTGCGGACCGCTGGCG  
CGTGTCCCTGGATGTCAACCACTTCGCCCCGGACGAGCTGACGGTCAAGACCAAGG  
ATGGCGTGGTGGAGATCACCGGCAAGCACGAGGAGCGGCAGGACGAGCATGGCTA  
CATCTCCCGGTGCTTCACGCGGAAATACACGCTGCCCCCGGTGTGGACCCCAACCA

AGTTTCCTCCTCCCTGTCCCCTGAGGGCACACTGACCGTGGAGGGCCCCCATGCCCAA  
GCTAGCCACGCAGTCCAACGAGATCACCATCCCAGTCACCTTCGAGTCGCGGGCCC  
AGCTTGGGGGGCCCAGAAGCTGCAAAATCCGATGAGACTGCCGCCAAGTAAAGCCTT  
AGCCTGGATGCCACCCCTGCTGCCGCCACTGGCTGTGCCTCCCCCGCCACCTGTGT  
GTTCTTTTGATACATTTATCTTCTGTTTTTCTCAAATAAAGTTCAAAGCAACCACCTG  
TAAAAAAAAAAAAAAAAAAAAA

SEQ ID NO: 4482

GGGGGAGGGTCGGAGCTCTGGTGGAGAGAGTGTGTCTAAAACAAGTTCCGGAAGG  
GAGGCTGCCCTTCGCGGTCCGAGAACCACCGGCCTCCCCAGTTTGAGGGCTGTTACC  
CCGTGCGCGCTTCGACGTTGCTGCTGTTGGCTCTCCTCGCCCCCTCGTTCCCTTGGGAA  
CCGCCTGGGAACTCCGCCATGTCATCCACTTCGCCCAACCTCCAGAAAGCGATAGAT  
CTGGCTAGCAAAGCAGCGCAAGAAGACAAGGCTGGGAACTACGAAGAAGCCCTTC  
AGCTCTATCAGCATGCTGTGCAGTATTTTCTTCATGTCGTTAAATATGAAGCACAAG  
GTGATAAAGCCAAGCAAAGTATCAGGGCAAAGTGTACAGAATATCTTGATAGAGCA  
GAAAAACTAAAGGAGTACCTGAAAAATAAAGAGAAAAAAGCACAGAAGCCAGTGA  
AAGAAGGACAGCCGAGTCCAGCAGATGAGAAGGGGAATGACAGTGATGGGGAAGG  
AGAATCTGATGATCCTGAAAAAAGGAACTACAGAATCAACTTCAAGGTGCCATTG  
TTATAGACCGACCAAATGTGAAATGGAGTGACGTTGCTGGACTTGAAGGAGCCAAA  
GAAGCACTGAAAGAGGCTGTGATACTGCCTATTAAATTTCTCATCTTTTACAGGC  
AAGAGAACACCTTGGAGGGGAATCCTATTATTTGGGCCCGCTGGAACAGGAAAGTC  
CTACTTAGCCAAAGCTGTAGCAACAGAAGCCAACAACCTCAACATTTTTTTCAATATC  
TTCCTCTGATCTTGTTTCTAAGTGGCTAGGTGAAAGTGAAAACTGGTTAAGAATTT  
ATTCCAACCTTGCCAGAGAGAAACAAGCCCTCCATTATCTTCATTGATGAAATTGATTC  
TCTCTGTGGTTCAAGAAGTGAAAATGAAAGTGAAGCCGCACGTAGAATTAAGACGG  
AGTTCCTAGTGCAAATGCAAGGGGTTGGTGTAGACAATGATGGAATTTTGGTTCTGG  
GAGCTACAAATATACCCTGGGTTCTGGATTCTGCCATTAGGCGAAGATTTGAGAAAC  
GAATTTATATTCCCTTGCCGGAACCCCATGCCCCGAGCAGCAATGTTTAAACTGCACC  
TAGGGACCACTCAGAACAGTCTCACGGAAGCAGACTTTCGGGAACTTGGGAGGAAA  
ACAGATGGTTATTCAGGGGCAGATATAGGTATCATTGTACGTGATGCCCTTATGCAG  
CCTGTTAGGAAAGTACAGTCAGCTACTCATTTTAAAAAGGTTTCGCGGACCTTCCCGA  
GCTGATCCTAACCATCTTGTAGATGATCTGCTAACACCTTGCTCTCCAGGTGACCCT  
GGTGCCATTGAAATGACGTGGATGGATGTCCCTGGAGATAAACTTTTGGAGCCAGTT  
GTTTCCATGTCGGATATGTTGCGGTCACTATCTAACACAAAACCTACAGTCAATGAA  
CATGACTTGTTGAAATTAAGAAGTTTACAGAAGATTTTGGTCAAGAAGGCTAAGC  
CAAAGACAAGGAAGATGCTTACCATATGTATTCTTTCTTTTCATAGATATTTTTGTCTA  
TTTGGATCGCATTAATTGTTTCCAGTAAAACTCTTTTACCACAGGGAAATACACATC  
TCACTTCAGAGTTCCATTAGGTTTTATATTGTACTTTTCTCTCCATTACTTATTAATAC  
TCCTATTAACAAAAGGTACAAAATAACAGGTTATGAGGAAATGAGCGATATATGAA  
CGGCATAAAAACAGAAATTACCCAGTAAAAAAGGATGTCAGAAATTGACATACAAAT  
ATTTACAATTTTTATGAATGGTGGTCTTTGCAAAGAGCATTATATTTCTTTTTTTTT  
TACTAAAATGATATATGGGTTTATTTTATATTTTCAAAAAAATTGTAAACATCATTC  
TTATCAATGTAAAATTTACGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

SEQ ID NO: 4484

GCTCACTGAGCACCGTCCCAGCATCCGGACACCACAGCGGCCCTTCGCTCCACGCAG  
AAAACCACACTTCTCATACCTTCACTCAACACTTCCTTCCCCAAAGCCAGAAGATGC  
ACAAGGAGGAACATGAGGTGGCTGTGCTGGGGGCACCCCCCAGCACCATCCTTCCA  
AGGTCCACCGTGATTAACATCCACAGCGAGACCTCCGTGCCCGACCATGTCGTCTGG  
TCCCTGTTCAACACCCTCTTCTTGAAGTGGTGTCTGCTGGGCTTCATAGCATTCGCCT  
ACTCCGTAAAGTCTAGGGACAGGAAGATGGTTGGCGACGTGACCGGGGCCAGGCC

TATGCCTCCACCGCCAAGTGCCTGAACATCTGGGCCCTGATTCTGGGCATCCTCATG  
ACCATTGGATTTCATCCTGTTACTGGTATTCGGCTCTGTAACAGTCTACCATATTATGT  
TACAGATAATACAGGAAAAACGGGGTTACTAGTAGCCGCCCATAGCCTGCAACCTT  
TGCACTCCACTGTGCAATGCTGGCCCTGCACGCTGGGGCTGTTGCCCTGCCCCCTT  
GGTCCTGCCCCTAGATACAGCAGTTTATACCCACACACCTGTCTACAGTGTCAATTCA  
ATAAAGTGCACGTGCTTGTGA

SEQ ID NO: 4486

ATATCCACTCCTGCTCTCCCTCCTGCAGGTGACCCAGCCATGAGGACCATCGCCAT  
CCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCAGGCTGAGTCACTCCAGGAAAG  
AGCTGATGAGGCTACAACCCAGAAGCAGTCTGGGGAAGACAACCAGGACCTTGCTA  
TCTCCTTTGCAGGAAATGGACTCTCTGCTCTTAGAACCTCAGGTTCTCAGGCAAGAG  
CCACCTGCTATTGCCGAACCGGCCGTTGTGCTACCCGTGAGTCCCTCTCCGGGGTGT  
GTGAAATCAGTGGCCGCCTCTACAGACTCTGCTGTCGCTGAGCTTCCTAGATAGAAA  
CCAAAGCAGTGCAAGATTCAGTTCAAGGTCCTGAAAAAAGAAAAACATTTTACTCT  
GTGTACCTTGTGTCTTTCTAAATTTCTCTCTCCAAAATAAAGTTCAAGCATT

SEQ ID NO: 4488

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SEQ ID NO: 4490

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TGCGGCGGCTCCGACGCAGGTGGAGCTGCTGACCTGGCCCCCTTTCTGCGGCTGCGAG



GGACTTTGAACATGTCGGGGATCGCCCTCAGCAGACTCGCCCAGGAGAGGAAAGCA  
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AGCTCAAGCAGAGGCCTACACGATTTACTGCCAAAACAGAGTGGAGTACGAGAAAA  
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SEQ ID NO: 4492

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CATTCTTCTGTTCAAATCTGGTTAAAAGCATGGACTGTGCCACACACCCAGTGATCC  
ATCCAGAAACAAGGACTGCAGCCTAAATTCCAAATACCAGAGACTGAAATTTTCAG  
CCTTGCTAAGGGAACATCTCGATGTTTGAACCTTTGTTGTGTTTTGTACAGGGCATT  
TCTGTACTAGTTTGTGCTGTTTATAAAACAATTAGCAGAATAGCCTACATTTGTATTT  
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SEQ ID NO: 4494

CGTTGGCCAAATTGACAAGAGCGAGAGGTATACTGCGTTCCATCCCGACCNNGGGGC  
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CAAAGCCAGAAACAAGTTGACGGGAGAGGTGGTGGCGCTTAAGAAAATCCGNNTG  
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